INDIGENOUS RACES OF THE EARTH

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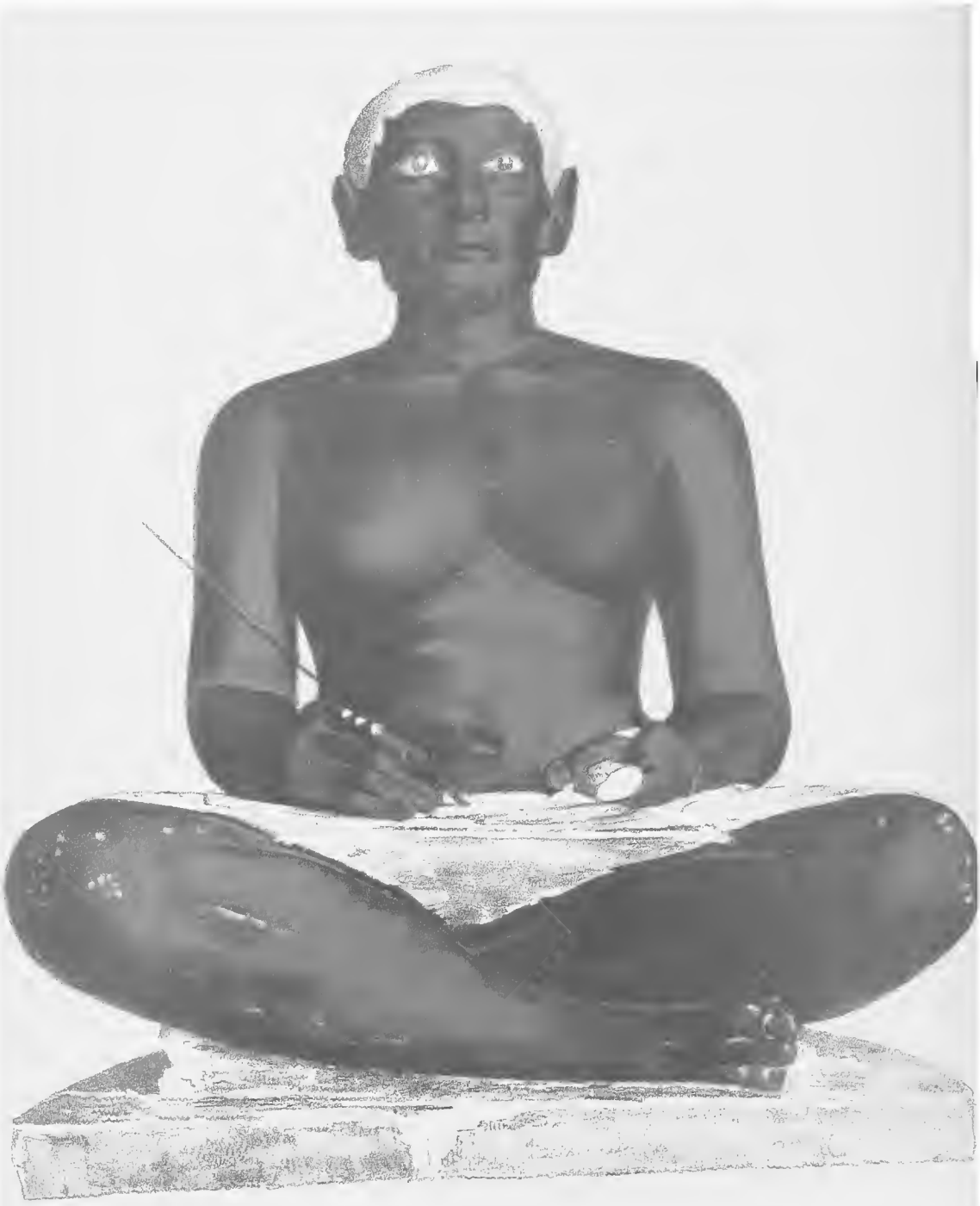

Ancient Egyptian Scribe, V^th Dyn.— Mariette's Discoveries, 1852-4.

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INDIGENOUS RACES

OF

THE EARTH;

OR,

New Chapters of Ethnological Enquiry;

INCLUDING

MONOGRAPHS ON SPECIAL DEPARTMENTS OF PHILOLOGY, ICONOGRAPHY, CRANIOSCOPY, PALÆONTOLOGY, PATHOLOGY, ARCHÆOLOGY, COMPARATIVE GEOGRAPHY, AND NATURAL HISTORY:

CONTRIBUTED BY

ALFRED MAURY,

BIBLIOTHÉCAIRE DE L'INSTITUT DE FRANCE; SECRÉTAIRE GÉNÉRAL DE LA SOCIÉTÉ DE GÉOGRAPHIE DE PARIS; MEMBRE DE LA SOCIÉTÉ IMPÉRIALE DES ANTIQUAIRES DE FRANCE, DES ACADÉMIES DE BORDEAUX ET DE CAEN, DES ACADÉMIES ET SOCIÉTÉS D'ARCHÉOLOGIE DE BELGIQUE, DE PICARDIE, DE MADRID, DES SOCIÉTÉS ASIATIQUE ET MÉDICO-PSYCHOLOGIQUE DE PARIS, DE LA SOCIÉTÉ D'HISTOIRE DE LA SUISSE-ROMANDE ET DE LA SOCIÉTÉ DE LITTÉRATURE NÉERLANDAISE DE LEYDE; CHEVALIER DE L'ORDRE DE LA LÉGION D'HONNEUR, ETC. ETC. ETC.,

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PROFESSOR OF THE INSTITUTES OF MEDICINE IN THE PHILADELPHIA COLLEGE OF MEDICINE; LIBRARIAN OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA; RECORDING SECRETARY OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY; FELLOW OF THE COLLEGE OF PHYSICIANS, ETC.

(With Communications from Prof. Jos. Leidy, M. D., and Prof. L. Agassiz, LL. D.)

PRESENTING FRESH

INVESTIGATIONS, DOCUMENTS, AND MATERIALS;

BY

J. C. NOTT, M. D., AND GEO. R. GLIDDON,

MOBILE, ALABAMA, FORMERLY U. S. CONSUL AT CAIRO,

AUTHORS OF "TYPES OF MANKIND."

PHILADELPHIA:

J. B. LIPPINCOTT & CO.

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TO

RICHARD K. HAIGHT,

NEW YORK.

I HAVE presumed on our long friendship, and the associations arising from our joint archæological and ethnological pursuits — as well as on my having been your colleague in numerous scientific societies in various parts of the world, for a period of more than twenty years — to dedicate this volume to you.

G. R. G.

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PUBLISHERS' ANNOUNCEMENT.

THROUGH the medium of a *Prospectus*, we have again invited public co-operation in bringing out a second work on Anthropology; and it is with no slight satisfaction that we now publish a larger list of Subscribers than even that received for "Types of Mankind."

Such testimonials of the interest taken by our fellow-citizens in scientific researches, are regarded by ourselves, as they will doubtless be by others both at home and abroad, as the best evidence of the love of knowledge developed in the United States through our educational institutions.

Under this conviction, we have endeavored to augment the value of "Indigenous Races of the Earth," by sparing neither exertion nor outlay to make the book itself worthy of the patronage bestowed upon it. Whether in the number of the wood-cuts and the lithographic plates, or as regards the amount of letter-press, it will be found, by those who may choose to compare the promises made in our *Prospectus* with their fulfilment in the present volume, that we have really given much more than could have been anticipated in a book the cost of which, to the American Subscriber, is only *Five Dollars* per copy.

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It is to this practical consideration alone that we appeal, should criticism allege that any of the mechanical part of this work might have been more skilfully executed. Had the price been higher, the performance would assuredly have been superior

In justice to the labors of the Authors and the Contributors, we will state, that no monetary compensation is equal to the pains bestowed by each upon his part; and several of the above have kindly furnished their quota without the remotest pecuniary object; at the same time, let it be noted, that the accomplished lady to whose single pencil four-fifths of the entire series of illustrations herein contained are due, spontaneously volunteered, and for two years has employed it, in behalf of her husband's literary interests.

Aside, also, from the communications made by Professors JOSEPH LEIDY and L. AGASSIZ, as well as by LIEUT. HABERSHAM, U. S. N., the reader will find in this volume several items of novelty, — altogether uncontemplated by us when the first *Prospectus* was issued last autumn.

Among these may be mentioned the inedited *Eskimo-cranium* derived from the late DR. KANE'S first Arctic Expedition, and the equally inedited *Tchuktchi-cranium* and *portrait* presented by MR. E. M. KERN, — artist in the recent North Pacific Expedition of the "Vincennes," under Captain Rodgers, U. S. N.

We hope, therefore, that every Subscriber will feel satisfied that we have fully redeemed our engagements in the premises.

J. B. LIPPINCOTT & Co.,

Publishers.

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PREFATORY REMARKS.

BY GEO. R. GLIDDON.

THE title of the present volume,—"Indigenous Races of the Earth," as well as that of our former work,—"Types of Mankind," are due to my colleague.

DR. NOTT possesses, beyond most men, the faculty of epitomizing the gist of an argument in the fewest words. It is on that account, and more especially for the disappointment readers may feel upon finding my name substituted for my colleague's, in this part of our joint book, that its opening page must contain an expression of my regret at the *only* untoward event which, from first to last, has been encountered in the literary undertaking now brought favorably to an end.

Being unavoidable, however, such issue—unforeseen but a few days ago—requires some brief explanation.

On my return from Europe last May, M. ALFRED MAURY'S manuscript for Chapter I. was the only part of this book in a state of completion. MR. FRANCIS PULSZKY'S, for Chapter II., arrived in consecutive portions by the mails from London; DR. J. AITKEN MEIGS'S, for Chapter III., and mine for Chapters V. and VI., were written here, during the past summer and autumn; while DR. NOTT, in the same interval, prepared his for Chapter IV. at Mobile.

It having been deemed inexpedient to incur the risks of loss of these manuscripts by sending them hence to Mobile, DR. NOTT, except through private correspondence and my oral report to him. "chez lui" last November, was necessarily unacquainted with their several tenor: but, when receiving from his hands the manuscript for Chap-

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ter IV., I anticipated no difficulty in supplying him with the "proof-sheets" of our volume quite in time for one—to whom the subjects developed in it are so familiar—to write the few pages of synopsis desirable for its "Prefatory Remarks."

Under this expectation, the "proof-sheets" have been punctually forwarded hence to Mobile by our Publishers; and I took for granted that, by the 15th February, at furthest, DR. NOTT'S second manuscript would have reached me here for the press. Unfortunately, we have all "reckoned without our host." From the latter part of December until, I may say, this moment, the wintry condition of the roads has been such as to compel my colleague to write me, almost at the last moment, that, having received but few of the "proof-sheets," and these in no connected series, he must abandon the hope of editing our "Prefatory Remarks."

My individual chagrin at this *contre-temps* is so great that I will not attempt to offer any substitute for DR. NOTT'S frustrated intentions. At a more propitious time, and through some other vehicle, I hope that my colleague may publish his own commentary upon "Indigenous Races of the Earth,"—which owes far more to his personal science and propulsion than appears on its face. In consequence, my part reduces itself to the editorship of three additional contributions,—to three paragraphs about Egyptian ethnography—and to succinct observations concerning my own Chapters V. and VI.

The gratifying communications now presented afford much scientific novelty and food for the reader's reflections. I append each in its order of date.

"NAVY YARD, PHILADELPHIA, *Jan. 20th*, 1857.

"MESSRS. NOTT & GLIDDON,

"Dear Sirs:—Your communication in regard to the hairy race who inhabit the Kurile Islands, and the red men of Formosa, has been received.

"I take pleasure in forwarding you two 'heads' of the former, as drawn by Mr. A. E. Hartman, the able artist of the United States Surveying Steamer 'John Hancock,' and only regret that I am unable to furnish you with similar sketches of the latter, our opportunities of examining them having been very limited. I take the following extracts in regard to these slightly known races from a narrative of our Cruise which I have now in press:—

"THE RED MEN OF THE ISLAND OF FORMOSA.

"I will say nothing more about Formosa for the present. We left its shores about as wise as we were upon our arrival, and it was not until our second visit that we picked up

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what little information now exists upon the files of the Expedition in regard to it. Upon leaving Keilung (the port of the island of Formosa), for Hong-Kong, we kept along the east coast of the island, in the vain search for a reported harbor. There was nothing to be seen but an iron-bound coast with range after range of lofty mountains lifting themselves above the heavy surf that broke along the entire beach. One day we thought we had discovered it: we saw ahead the smoke of distant villages rising back of a bight in the coast which looked very much like a harbor; but, upon approaching it, we found ourselves mistaken. We, however, lowered a boat and attempted to land, but the surf was breaking so furiously that it would have been madness to have entered it. Besides, the beach was crowded by naked and excited savages, who it was generally reported were cannibals, and into whose company we should consequently have preferred being thrown with reliable arms in our hands. The two convicts, whom the captain had taken in the boat to interpret in case of his being able to land, became so frightened at the savage appearance of those reported man-eaters, that they went on their knees to him, protesting, through the steward, that the islanders had eaten many of their countrymen, and that if he went any nearer they would do the same by him and the boat's crew. Finding it impossible to pass the surf, the boat returned on board, and we squared away for Hong-Kong." * * * * "And now, before I turn to my journal for a few pages in regard to our experience while coasting around this island, let me enlighten the reader as much as possible in regard to it from other sources. The Encyclopædia Britannica says,—

"'The Dutch at an early period established a settlement on this island.

"'In 1625, the viceroy of the Philippine Islands sent an expedition against Formosa, with a view of expelling the Dutch. It was unsuccessful. . . . About the middle of the seventeenth century, it afforded a retreat to twenty or thirty thousand Chinese from the fury of the Tartar conquest. . . . In 1653, a conspiracy of the Chinese against the Dutch was discovered and suppressed; and, soon after this, Coxinga, the governor of the maritime Chinese province of Tehichiang, applied for permission to retire to the island, which was refused by the Dutch governor; on which he fitted out an expedition, consisting of six hundred vessels, and made himself master of the town of Formosa and the adjacent country The Dutch were then allowed to embark and leave the island. . . . Coxinga afterward engaged in a war with the Chinese and Dutch, in which he was defeated and slain. But they were unable to take possession of the island, which was bravely defended by the posterity of Coxinga; and it was not till the year 1683 that the island was voluntarily surrendered by the reigning prince to the Emperor of China. . . . In 1805, through the weakness of the Chinese government, the Ladrone pirates had acquired possession of a great part of the southwest coast.'

"The Encyclopædia Americana says,—

"'The island is about two hundred and forty miles in length from north to south, and sixty from east to west in its broadest part, but greatly contracted at each extremity. That part of the island which the Chinese possess presents extensive and fertile plains, watered by a great number of rivulets that fall from the eastern mountains. Its air is pure and wholesome, and the earth produces in abundance corn, rice, and most other kinds of grain. Most of the India fruits are found here, — such as oranges, bananas, pineapples, guavas, cocoanuts,—and part of those of Europe, particularly peaches, apricots, figs, grapes, chestnuts, pomegranates, watermelons, &c. Tobacco, sugar, pepper, camphor, and cinnamon, are also common. The capital of Formosa is Taiouan, — a name which the Chinese give to the whole island.'

"In addition to the foregoing extracts from standard authority, we have a most marvellous account of this island from the pen of Mauritius Augustus, Count de Benyowsky, a Polish refugee from Siberian exile, who visited its east coast, in 1790, in a small armed vessel containing about one hundred men. The account by this nobleman is interesting in the extreme, but unfortunately he is guilty of one gross and palpable falsehood, which necessarily throws a shade of distrust on his entire narrative. He speaks 'of anchoring in several

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fine harbors on the east coast;' whereas we of the Hancock searched in vain for any such place of refuge along that entire shore. On the north and west coasts they are quite plentiful.

"After anchoring in one of these 'fine harbors,' the Count goes on to give us an idea of the people who received him: they were Indians, savages, and very fierce, — so much so that they soon attempted the murder of a party that had visited their village. He now killed a great many of them, got up his anchor, and went to an adjoining harbor, where he was most graciously received for having slain so many of their enemies of the place they had just left. Here he fell in with a prince, who persuaded him into an alliance against another prince, and thus they fought for some time. Finally, he drags himself from the island, much to the distress of the prince his ally, who loads him down with gold and silver. It is impossible to read the Count's narrative and say what he *did see.* He was evidently a blood-relative of the Munchausen family.

"And now, having shown what others say in regard to Formosa, let us return to the 'old John,' whom we left at anchor under shelter of its west coast, at the close of a stormy day. Here is what my journal says in regard to our arrival, and to what we saw and did upon the following days:—

"'We could see nothing that night save an extensive stretch of white sand-beach backed by a sloping green, in the rear of which we imagined we saw a village slumbering under the deepening shadows of a high range of mountains. But this village existed, many said, only in the vivid imaginations of a few, and it was not until darkness had become sufficiently dense to reflect its many lights, that the fact was generally admitted. The next morning, however, we had a most refreshing view spread out before us, — green slopes and waving fields of grain, broken here and there by extensive tracts of table-land, over which we could see the cattle roving in their lazy search for the more tender mouthfuls of the abundant grass.' * * * *

"'During the night the gale fortunately abated, and the next morning 'bust-proof' and his master, several others of the mess, and myself, ventured into our best-pulling boat and struck out boldly for the beach. It was a hard and wet pull; but something over three-quarters of an hour sufficed to cross the stormy half mile that separated us, and, as the keel grated with welcome harshness on the sand, we felt ourselves once more on shore. What if the boat *was* half full of water, and we like half-drowned rats? we were still *on shore.*

"'We landed upon this strange and crowded beach without fear, simply from the fact that, while yet some distance off, we had readily recognised the natives as Chinese, and, although they were all armed with either the matchlock or bow and arrow, we knew too much of their race to anticipate violence. This crowd, which received us in a most noisy manner, was composed of men, women, and children,—the males of almost every age being armed. We had taken the precaution to bring one of our Chinese mess-boys with us; but, their language being neither the Mandarin, Canton, or Shanghæ dialect, he at first found great difficulty in making himself understood. After a while, however, by the aid of the few words common to each, and a fearful amount of violent pantomime on our part, we succeeded in exchanging ideas with tolerable freedom.

"'From all that we could learn from them in this way, it seems that they exist in a state of perpetual warfare with their *savage neighbors of the east coast.* The island being very narrow there, the latter find no difficulty in crossing the mountain-ridge which, like a huge back-bone, divides the two territories, capturing cattle, making prisoners, burning isolated habitations, and then retreating into their mountain-fastnesses, where they are never followed by their unwarlike victims. Thus we always found the latter armed with sword, matchlock, or bow and arrow, and confining themselves strictly to their fields and pasture-grounds. Whenever we evinced a disposition to ascend the bushy sides of the neighboring hills, they became greatly alarmed, caught hold of our clothes, threw themselves in our paths, and made signs to us that our throats would be certainly cut and we roasted for

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supper by bad men who were very strong and fierce, and who wore large rings in their ears. We did not know what to make of all this at first; but Hartman, who had wandered off by himself in search of snipe, rejoined us shortly before dark, and opened our eyes.

"'Having unconsciously wandered over the low land and ascended a neighboring elevation, he had seated himself upon a fragment of rock, and was admiring the view which opened before him, when his ear suddenly caught a sound as of some animal making its way cautiously through the bushes. He turned quickly, and saw a party of three, whom he had no difficulty in recognizing as 'bad men who wore large rings in their ears.'

"'Here was a fix for our innocent sportsman: he must either retire with an imaginary tail between his legs, or face boldly the unlooked-for danger. Fortunately, he was a man of nerve, and was moreover armed with a shot-gun, bowie-knife, and revolver. Choosing, therefore, the latter alternative, he arose with a great air of non-she-lan-cy (as I once heard the word pronounced by an American who had been to Paris), and advanced to the nearest, a tall, fine-looking fellow, who rested upon his bow and fixed his gaze curiously upon him. Hartman says that he whistled with considerable success portions of a popular air as he thus went, as it were, into the lion's mouth, but never before felt such a longing to be safely on the distant decks of the much-abused 'old John.' He soon joined this princely-looking savage, and as the others drew near he made a careful but hurried survey of their personal appearance, exchanged a Mexican dollar for the bow and arrow of one of them, evidently against the will of the surprised owner, and then leisurely retraced his way until an intervening clump of trees enabled him with safety to call upon his legs to do their duty. It is needless to remark that the vocal music and the air of 'non-she-lan-cy' expired in each other's arms at this point. He ran for a mile or more before evincing the slightest curiosity to know if he was followed.'

"He described them as being of large stature, fine forms, copper-colored, high cheek-bones, heavy jaws, coarse black hair reaching to the shoulders, and boasting no clothing save the maro, and a light cotton cloth over the shoulders,—*very much like our North American Indians*, he thought. No wonder that such a miserable race as the Chinese should hold them in dread: in fact, the only wonder is that they have the courage to remain on the same island. I suppose that our innocent sportsman is the first member of civilization who has had a close view of these reputed cannibals since Benyowsky, the Polish Count, cruised along their shelterless shores in 1790, since which time they have been more out of the world even than the Japanese. These singularly-captured bow and arrows are now in the collection of the Expedition. * * * * *

"More than once, however, impelled by our excessive curiosity to learn more of these unknown people, did we attempt to land; and more exciting attempts at shore-going I never participated in. Upon one of these occasions we entered upon the dangerous trial with two of our best boats; but, upon nearly losing the inner one, with all who were in her, we wisely returned on board. We got more than one near view of the savages, however, heard their voices, and answered their signs; but all this only increased our desire to know more of them, for now we saw that they were veritable red men; and what were red men doing on the island of Formosa?

"From what I could see over the distance which separated our boat from the crowded beach, I found the previous description of our 'innocent sportsman' substantiated by my own eyes and those of others. We saw an excited crowd of fine-looking men and women, copper-colored, and possessed of the slightest possible amount of clothing,—the former boasting only a cloth tied around the head, while the latter had but a thin loose garment that seemed to gather aronnd the throat and extended no farther than the knee. Some of the men were armed with bow and arrow, others with very serviceable-looking matchlocks; the women held various articles in their hands, probably for barter, and, as we pulled away after our narrow escape, they evinced their sorrow and desire to trade by loud cries and the most violent gestures. Our Chinese boy had almost fainted from fright as the inner

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boat backed into the surf in the attempt to land: he could only tremble and cry out, 'Dey eat man! dey eat man!' His friends on the other side had evidently impressed him with that unpleasant national characteristic, and hence his fright when apparently about to be rolled helplessly to their feet by a boiling surf.

"The same day upon which we made this our last attempt to land among them, we steamed along up their coast, keeping as close as was prudent, — in fact closer, — and examining with our glasses as far back as we could see. In this way we saw small but apparently comfortable stone houses, neatly-kept grounds, — what looked like fruitful gardens and green fields,—all being cultivated by 'Chinese prisoners who had not yet been eaten,' we were told on the other side; or rather we were told that their friends, when captured, were made to work until needed for culinary purposes.

"We were surprised at this air of comfort among half-naked savages, and could not but wonder how they could have built such nice-looking houses, until we finally concluded that their prisoners had been made to turn their hands to masonry as well as gardening. Thus ended our second and last visit to Formosa."

"THE AINU, OR HAIRY KURILE."

[See Lieut. Habersham's comments, *infra*, Chapter vi., pp 620–621.]

"Hoping that the foregoing extracts are what you want, I remain, yours very truly,

A. W. HABERSHAM, U. S. N."

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"CAMBRIDGE, *Feb.* 1, 1857.

"MY DEAR SIRS.—In answer to your queries respecting my latest investigations upon the question of the primitive diversity of the races of man, I have only a few general remarks to make. Most of the difficulties which have been in the way of a more speedy solution of that perplexing question, have arisen from the circumstance, that it has been considered too isolately, and without due reference to the progress made in other branches of Zoology. I have already shown, in the 'Sketch of the natural provinces of the animal world, and their relation to the different types of man,' which you have inserted in 'Types of Mankind,' that, so far as their geographical distribution upon the surface of the globe is concerned, the races of man follow the same laws which obtain in the circumscription of the natural provinces of the animal kingdom. Even if this fact stood isolated, it would show how intimately the plan of the animal creation is linked with that of mankind. But this is not all: there are other features occurring among animals, which require the most careful consideration, inasmuch as they bear precisely upon the question at issue, whether mankind originated from one stock, or from several stocks, or by nations. These features, well known to every zoologist, have led to as conflicting views respecting the unity or plurality of certain types of animals, as are prevailing respecting the unity or plurality of origin of the human races. The controversy which has been carried on among zoologists, upon this point, shows that the difficulties respecting the races of men are not peculiar to the question of man, but involve the investigation of the whole animal kingdom—though, strange as it may appear, they have always been considered without the least reference to one another.

"I need not extend my remarks beyond the class to which man himself belongs, in order to show how much light might be derived, for the study of the races, from a careful comparison of their peculiar characteristics with those of animals. The monkeys most nearly allied to man afford even the best examples. The orang-outans of Borneo, Java, and Sumatra, are considered by some of the most eminent zoologists as constituting only one single species. This is the opinion of Andreas Wagner, who, by universal consent, ranks as one of the highest authorities in questions relating to the natural history of mammalia; while Richard Owen, than whom no man, with the exception of our own Jeffreys Wyman, has studied more carefully the anthropoid monkeys, considers them as belonging to at least three distinct species. A comparison of the full and beautifully illustrated descriptions which Owen has published, of the

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skeleton and especially of the skulls of these species of orangs, with the descriptions and illustrations of the different races of man, to be found in almost every work on this subject, shows that the orangs differ from one another in the same manner as the races of man do; so much so, that, if these orangs are different species, the different races of men which inhabit the same countries, the Malays and the Negrillos, must be considered also as distinct species. This conclusion acquires still greater strength, if we extend the comparison to the long-armed monkeys, the Hylobates of the Sunda islands and of the peninsulas of Malacca and Deckan, which extend over regions inhabited by the Telingans, the Malays, and the Negrillos; for there exists even a greater diversity of opinions among zoologists respecting the natural limits of the species of the genus Hylobates, than respecting those of the orangs, which constitute the genus Pithecus. I have already alluded, on another occasion, to the identity of color of the Malays and orangs: may we not now remember, also, a similar resemblance between some of the species of Hylobates with the Negrillos and Telingans?

"The monkeys of South America are also very instructive in this respect, especially the genus Cebus. While some zoologists distinguish as many as ten different species, others consider them all as one, and others acknowledge two or three species. Here we have again, with reference to one genus of monkeys, the same diversity of opinion as exists among naturalists respecting the races of man. But, in this case, the question assumes a peculiar interest, from the circumstance that the genus Cebus is exclusively American; for that discloses the same indefinite limitation between its species which we observe also among the tribes of Indians, or the same tendency to splitting into minor groups, running really one into the other, notwithstanding some few marked differences,—in the same manner, as Morton has shown, that all the Indians constitute but one race, from one end of the continent to the other. This differentiation of our animals into an almost indefinite number of varieties, in species which have, as a whole, a wide geographical distribution, is a feature which prevails very extensively upon the two continents of America. It may be observed among our squirrels, our rabbits and hares, our turtles, and even among our fishes; while, in the Old World, notwithstanding the recurrence of similar phenomena, the range of variation of species seems less extensive and the range of their geographical distribution more limited. In accordance with this general character of the animal kingdom, we find likewise that, among men, with the exception of the Arctic Esquimaux, there is only one single race of men extending over the whole range of

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North and South America, but dividing into innumerable tribes; whilst, in the Old World, there are a great many well-defined and easily distinguished races, which are circumscribed within comparatively much narrower boundaries.

"This being the case, is it not plain that, unless we compare constantly the results of our ethnological investigations with the daily increasing information we possess respecting the relations of animals to one another and their geographical distribution, light will never shine upon the question of the races of man?

"There is another point to which I would simply allude. Much importance is attached to the affinity of languages—by those who insist upon the primitive unity of man—as exhibiting, in their opinion, the necessity of a direct affiliation between all men. But the very same thing might be shown of any natural family of animals,—even of such families as contain a large number of distinct genera and species. Let any one follow upon a map exhibiting the geographical distribution of the bears, the cats, the hollow-horned ruminants, the gallinaceous birds, the ducks, or of any other families, and he may trace, as satisfactorily as any philological evidence can prove it for the human language, and upon a much larger scale, that the brumming of the bears of Kamtschatka is akin to that of the bears of Thibet, of the East Indies, of the Sunda islands, of Nepal, of Syria, of Europe, of Siberia, of the United States, of the Rocky mountains, and of the Andes; though all these bears are considered as distinct species, who have not any more inherited their voice one from the other, than the different races of men. The same may be said of the roaring and miawing of the cats of Europe, Asia, Africa, and America; or of the lowing of the bulls, the species of which are so widely distributed nearly over the whole globe. The same is true of the gackeling of the gallinaceous birds, and of the quacking of the ducks, as well as of the song of the thrushes,—all of which pour forth their gay and harmonious notes in a distinct and independent dialect, neither derived nor inherited one from the other, even though all sing thrush*ish*. Let any philologist study these facts, and learn, at the same time, how independent the animals are, one from the other, which utter such closely allied systems of intonations, and, if he be not altogether blind to the significance of analogies in nature, he must begin himself to question the reliability of philological evidence as proving genetic derivation.

"Ls. Agassiz."

Messrs. Nott & Gliddon.

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PHILADELPHIA, *Feb.* 10th, 1857.

DR. NOTT AND MR. GLIDDON,

Dear Sirs:—You have frequently expressed the desire that I should give to you a Chapter on some ethnographic subject, which I would gladly have done had I made Ethnography an especial study. After the death of DR. MORTON, it was proposed to me to take up the investigation of the cranial characteristics of the human races, where he had left it, which I omitted, not from a want of interest in ethnographic science, but because other studies occupied my time. Having, as curator of the Academy of Natural Sciences the charge of Dr. Morton's extensive cabinet of human crania, I confided the undertaking to DR. MEIGS, who has shown his capability for investigating the intricate subject of Ethnography in the excellent Chapter he presents as a contribution to your work. To the paper of Dr. Meigs it was proposed that I should add notes; but after a diligent perusal it appeared to me so complete, that I think I could not add anything to enhance its value.

While engaged in palæontological researches, I sought for earlier records of the aboriginal races of man than have reached us through vague traditions or through later authentic history, but without being able to discover any positive evidences of the exact geological period of the advent of man in the fauna of the earth.

The numerous facts which have been brought to our notice touching the discovery of human bones, and rude implements of art, in association with the remains of animals of the earlier pliocene deposits, are not conclusive evidence of their contemporaneous existence.

It is not from the land of their birth, and upon which they moved and died, that we learn the history of lost races of terrestrial animals; it is in the beds of lakes and inland seas, and in the deltas of rivers, at the boundaries of their habitation. In reflecting upon the present condition of the habitable earth, with its teeming population and the rapid succession of births and deaths, we might be led to suppose the surface of the earth had become thickly strewn with the remains of animals. It is, however, no less true than astonishing, that, with comparatively trifling exceptions, the remains of each generation of animals are completely obliterated. Penetrate the forests, traverse the prairies, and explore the mountain chains and valleys of America, and seek for the bones of the generations of red-men, of the herds of bison, and of other animals, which have lived and died in past ages. Neither upon nor beneath the surface of the earth are they to be

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found; for devouring successors, and the combined influence of air and moisture, have completely extinguished their traces. An occasional swollen carcase, borne by a river current, and escaping the jaws of crocodiles and fishes, leaves its remains in the bed of a lake, or in a delta, to represent in future time the era of its existence.

Since the Glacial Period, or rather since the subsequent emergence of the northern zones of America and Europe from the Great Arctic Ocean, the general configuration of the continents has remained nearly unchanged down to the present time. In consequence of this circumstance the deposits or geological formations in which we could most advantageously study the earliest traces of primitive man, are, in the greatest degree, inaccessible to our investigations. These deposits are the beds of modern lakes and inland seas, and fluviatile accumulations or deltas. Marshes, in many instances, have served as the depository of the larger quadrupeds, which have perished in the mire; but these are places in which the remains of man would be rarely found, because they are naturally avoided.

Coeval, perhaps, with the Glacial Period of the northern hemisphere, which at the present time exhibits its similitude in the Great Antarctic Ocean, primitive races of man may have already inhabited the intertropical regions; and in the gradual emergence of the northern zones of the earth he may have followed the receding waters—traditions of which, in after ages, when conjoined with the view of the accumulations of drift material, may have given rise to the idea of a universal deluge, which appears to have prevailed among the aborigines of the western as well as of the eastern world.

No satisfactory evidence has been adduced in favor of this early appearance of man; but I am strongly inclined to suspect that such evidence will yet be discovered.

Many animals, which we may infer to have existed in association with the Mastodon and Megalonyx, have so thoroughly disappeared from the face of nature that no trace of them is to be discovered. Near Natchez, Mississippi, there have been found together in the same deposit, the remains of the Elephant, Mastodon, Mylodon, Megalonyx, Ereptodon, Bison, Cervus, Equus, Ursus, Canis, the lower jaw of a lion, and the hip bone of a man. All the bones are infiltrated with peroxide of iron, and present the same appearance. The lower jaw of the lion, the type of the *Felis atrox*, is the only relic of the species yet discovered, though the animal most probably at one period ranged America as freely and for as long a time as its present congener of Africa and Asia. The human hip-bone alluded to, has been supposed by Sir Charles Lyell to have been subsequently

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introduced among the remains of the other animals mentioned; and this snpposition I deem highly probable, although the bone does present the same appearance as the others with which it was found.[1] We cannot, however, positively deny that it was contemporaneous with those of the extinct animals.

When America was discovered by Europeans it was thickly populated by a race of man, which appears already to have existed for many ages, and it is quite as probable that he had his origin on this continent as that men originated elsewhere;[2] and further, it is probable that the Red-man witnessed the declining existence of the Mastodon and Megalonyx, in the later ages of the glacial period.

The early existence of the genera to which our domestic animals belong, has been adduced as presumptive evidence of the advent of man at a more remote period than is usually assigned. It must be remembered, however, even at the present time, that of some of these genera only a few species are domesticated: thus of the existing six species of Equus, only two have ever been freely brought under the dominion of man.

The horse did not exist in America at the time of its discovery by Europeans; but its remains, consisting chiefly of molar teeth, have now been so frequently found in association with those of extinct animals, that it is generally admitted once to have been an aboriginal inhabitant. When I first saw examples of these remains I was not disposed to view them as relics of an extinct species; for

[1] Bones of recent animals, when introduced into older deposits, may in many cases very soon assume the condition of the fossils belonging to those deposits. Fossilisation, petrifaction, or lapidification, is no positive indication of the relative age of organic remains. The miocene vertebrate remains of the Himalayas are far more completely fossilised than the like remains of the eocene deposits of the Paris basin; and the remains of the tertiary vertebrata of Nebraska are more fossilized than those of the secondary deposits beneath. The Cabinet of the Academy of Natural Sciences of Philadelphia contains bones of the Megalonyx and of the extinct peccary, that are entirely unchanged; not a particle of gelatin has been lost, nor a particle of mineral matter added, and indeed some of the bones of the former even have portions of articular cartilage and tendinous attachments well preserved.

[2] It is not at all improbable that man (strictly the genus Homo) may have first originated in central Asia. When we reflect upon the gradual advance in intelligence in the scale of living beings, through successive geological periods, may we not infer that the apparently earlier civilization of the human race in Asia is indicative of its earliest advent in that portion of the world? Various races of man, in different geographical positions, may have acquired their peculiar characteristics (their specific origin) at successive periods long distant from each other. Perhaps when the aboriginal progenitors of the civilized Mexicans and Peruvians roamed as savage hordes through intertropical America, the great Arctic Ocean yet concealed the present northern United States in its depths, and Asiatic civilization was then just dawning from ages of night.

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although some presented characteristic differences from those of previously known species, others were undistinguishable from the corresponding parts of the domestic horse, and among them were intermediate varieties of form and size. The subsequent discovery of the remains of two species of the closely allied extinct genus Hipparion, in addition to the discovery of remains of two extinct equine genera (Anchitherium and Merychippus) of an earlier geological period, leaves no room to doubt the former existence of the horse on the American continent, contemporaneously with the Mastodon and Megalonyx; and man probably was his companion.

Some time since, Prof. F. S. Holmes, of Charleston, submitted for my examinatiou a collection of fossil bones from a post-pleiocene deposit on Ashley River, S. C. Among remains of the extinct horse, the peccary, Mylodon, Megatherium, Mastodon, Hipparion, the tapir, the capybara, the beaver, the musk-rat, &c., were some which I considered as belonging to the dog, the domestic ox, the sheep and the hog. Prof. Holmes observes that these remains were taken from an extensive deposit, in which similar ones exist abundantly; and he further adds, that he cannot conceive that the latter should have become mingled with the former since the introduction of domestic animals into America by Europeans. It is not improbable that the American continent once had, as part of its fauna, representatives of our domestic animals which subsequently became extinct—though I am inclined to doubt it; but what we have learned of the extinct American horse will lead me carefully to investigate the subject.

My letter is much extended beyond what I designed, but I hope its facts and suggestions will have sufficient interest with you to relieve its tediousness.

I remain with respect,
at your further service,
Joseph Leidy.

Mr. Pulszky (*infra*, Chapter II., p. 109) has referred to Dr. Nott's experienced consideration some very interesting points of Egyptian ethnology, based upon fresher discoveries than any with which we were acquainted on the publication of our last work in 1854. I have no wish to interfere with the latter's specialty of research, in which I trust the future may rank me also among the taught: but, taking for granted that the reader can verify accuracy in Egyptological works (abundantly cited in this as in our preceding publication), I may here sketch some archæological facts as preliminary headings for my colleague's elaboration hereafter,—being general results in which he and myself coincide.

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The *Egyptians*, eldest historical branch of the Hamitic group of races, now appear to science as *terræ geniti*, or autochthones, of the lower valley of the Nile,—and this, of course, from a period incalculably beyond all "chronology." Upon them, at a secondary phase of the existence of the former, but prior even to the erection of the earliest pyramid of the IIId Dynasty, Semitic races by degrees became infiltrated and, at a later period—XIIth to XXIId Dynasties —superposed. From about the twenty-second century B. C., down to the seventh, *Hyksos* invasions, Israelitish sojourn, Phœnician commerce, Assyrian and Babylonish relations, greatly *Semiticized* the people; at the same time that frequent intermarriages of the pharaonic and hierogrammatic families with princesses and *noblesse* of the Semitic stock in Palestine, Arabia, Syria, and Mesopotamia, materially affected the original type of the ruling class of Egyptians. About B. C. 650, PSAMMETICHUS I., by throwing open the army and the ports of Egypt to the Greeks, introduced a third element of amalgamation, viz: the Indo-European; which received still stronger impetus after CAMBYSES (B. C. 525) and his successors held Egypt prostrate under *Arian* subjection. ALEXANDER (B. C. 332), and the Ptolemies, then overwhelmed Lower Egypt with Macedonians and other Grecians; CÆSAR (B. C. 39–30), and the Roman emperors, injected streams of Indo-Germanic, Celtic, and some Sarmatian blood, through legionaries drawn even from *Britannia et Dacia antiquæ*, into the already-altered Egyptian veins. Lastly, B. C. 641, Arabia sent her wild dromedary-riders along the Nile from its mouths to its Abyssinian sources.

Now, at this period of Egyptian life, about twelve centuries ago, no population, in the world perhaps, had undergone such transformations (individually speaking) of type as had these Hamites through Semitic and Indo-European amalgamation with their females,—never famous for continence at any time. Besides, a certain but really infinitesimal and ephemeral quantum of Ethiopian and Nigritian blood had, through importation of concubines, all along, from the XIIth Dynasty, been flowing in upon this corrupted mass from the south. Preceded, under the Khalifates, by occasional Turanian captives; increased during the period of the "Ghuz" through contact with the Mongolian offshoots of HULAGOU; and stimulated daily by fresh accessions of "Caucasian" *Memlooks*,—the Ottomans, about A. D. 1517, commenced despoiling the fairest land amidst all those doomed to their now-evanescent dominion. But,—and here is the new point in ethnology to which the reader's attention is solicited—from and after the era of the Saracenic conquest, a revulsion in the order of these conflicting amalgamations began to take effect. On

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the advent of Islàm and its institutions, which were received with rapture by the Egyptian masses, unions between the Mohammedanized Fellàh women and any males but Mussulmans became *unlawful.* It will also be noted, too, that neither the "Caucasian" Memlooks, nor the Turanian Turks, could or can raise hybrid offspring (permanent, I mean to say), in Egypt: and again, that all these importations of foreign rulers, since the time of Cambyses, consisted in *soldiery,*— very disproportionate in numerical amount to the gross bulk of the indigenous agricultural population.

Hence, under Islamism, the people began to pause, as regards any important effects, in this promiscuous intermixture with alien races; except (in cities chiefly) with their congeners the *Arabs.* But, on the other haud, among the decaying mongrels termed "Copts" (Christian *Jacobites*) — no Muslim law forbidding their intercourse with any nation — the action of hybridity has never stopped from that day to this: which is the simple rationale of the discrepant accounts of tourists in respect to the multiform varieties beheld in this small section of the Egyptians. Now, from the commencement of that pause, in the 7th century of our era, down to the present time, some *thirty-six* generations have elapsed; during which the Muslim peasant population — that is, between two and three millions — intermarrying among themselves, have really absorbed, or thrown off, those alien elements previously injected into their blood, — and thus, the *Fellàhs* of the present day have, to an amazing degree, and after some fifty centuries, actually recovered the *type of the old IVth dynasty.* Indeed, one might almost assert that, from *blank* centuries before Christ down to the XIXth century after, the greatest changes which time has wrought upon the bulk of the indigenous *Egyptian* race reduce themselves, — in religion, to Mohammed for Osiris; in language, to Semitic for Hamitic; in institutions, to the musket for the bow; but, in blood, to little if any. See again Mr. Pulszky's Chapter (I, pp. 107–122), and our plates (I and II, *infra*).

One word more, as concerns my individual contributions in Chapters V and VI.

With the exception of Chapter III, which Dr. Meigs has been so good as to revise himself, the entire labor of editorship has fallen upon me; and, as an inevitable consequence, I have not had the time, even supposing possession of the ability, to bestow upon my own contributions the verbal criticism they might, otherwise, have received. Furthermore, apart from a few pages of my manuscripts regarding the natural history of monkeys submitted last summer to the obliging perusal of my friends, Prof. Leidy and Dr. Meigs, I

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have neither consulted anybody as to the subjects upon which I proposed to treat, nor has any one seen the "revises" until the plates were stereotyped. Consequently, for whatever I may have written, with a free pen and open utterance, no person but myself is responsible.

If the reader will complaisantly bear in mind that the Chapters, severally chosen by my colleague Dr. Nott, and our collaborators, had already covered a vast range of "Ethnological Inquiry,"—upon which, whether acquainted with the themes or not, delicacy forbade my trenching—he will perceive the reason why, under the caption of "the *Monogenists* and the *Polygenists*," I have endeavored to fill up some gaps in what I deem to be ethnographical *desiderata*. Such as these facts or deductions of my own may be, I submit them unreservedly to public criticism; at the same time that, although not advanced with indifference to either, they must take their chance, without courting approbation, or deprecating blame.

G. R. G.

Philadelphia, 20*th Feb.*, 1857.

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INDIGENOUS RACES

OF

THE EARTH.

CHAPTER I.

ON THE DISTRIBUTION AND CLASSIFICATION OF TONGUES, — THEIR RELATION TO THE GEOGRAPHICAL DISTRIBUTION OF RACES; AND ON THE INDUCTIONS WHICH MAY BE DRAWN FROM THESE RELATIONS.

BY ALFRED MAURY,

Librarian of the French Imperial Institute, Secretary-General of the SOCIÉTÉ DE GÉGGRAPHIE DE PARIS.

[COMMUNICATED TO DR. NOTT AND MR. GLIDDON.]

SECTION I.

AUTHORS who have occupied themselves with the comparison of languages have been inclined sometimes not to distinguish, in the grammar, that which belongs to the very constitution of speech (itself nothing else than the constitution of the human mind), and that which appertains to such or to such another given form of utterance. It is here, however, that an important distinction should be made: because, if the difference between generic and specific characters be not perceived, a man is incapable of analysis; and instead of making a classification he loses himself in a synthesis vague and indefinite.

Languages are organisms that are all conceived upon the same plan,—one might almost say, upon the same *skeleton*, which, in their development and their composition, follow fixed laws: inasmuch as these laws are the consequence of this organism itself. But, alongside of this identity in the procedure, each family of tongues has its own special evolution, and its own destinies. They all possess among

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themselves some particular analogies, which are made evident upon comparing these families one with another; but such resemblances are never the same amongst many families; and two groups, that have a given characteristic in common, differ through some other which, notwithstanding, links one of them to a group more remote. In brief, the specific characters of languages are like those of animals; no characteristic taken singly possesses an absolute value, being merely a true indication of lineage or of relationship. It is their multiplicity, the frequent recurrence of grammatical forms altogether special, which really constitutes families. The closer affinity becomes grasped when words are discovered, either in their "ensemble," or for uses the most customary and most ancient, to be identically the same.

Thus, then, we recognise two degrees of relationship among the idioms spoken by mankind, viz: the relationship of words coupled with a conformity of the general grammatical system; or, this conformity without similitude of vocabulary. Languages may be termed *daughters* or *sisters* when they offer the former degree of relationship, and *allied* when they are connected through the latter.

Do all languages proceed from a common stock—from one primitive tongue, which has been the (*souche*) trunk of the branches now-a-days living isolately?

This, for a long time, was believed. Nevertheless, such belief was not based upon an attentive comparison of tongues that had either not yet been attempted, or which was hardly even sketched out: but it arose simply from confidence reposing upon the recital of Genesis, and owing to the servile interpretation that had been foisted upon its text. Genesis, indeed, tells us, at the beginning of its XIth chapter,[1]—"*There were then upon all the earth one single language and the same words.*"

This remark of the sacred historian has for its object to explain the account of the Tower of Babylon. The nature of his narrative cannot occasion doubt in the eyes of criticism the least practised. We have here a myth that is certainly very ancient, and which the Hebrews had brought back again (after the Captivity) from their mother-country. But it is impossible to behold in it an *exposé* really historical. The motive given for the construction of the tower is that which would suggest itself to the mind of a simple and ignorant population, unable to comprehend the reason why the Assyrians should erect this tower destined for astronomical observations, inti-

[1] *Verse* 1; Hebrew Text (CAHEN, *La Bible, Traduction nouvelle*, Paris, 1831, i. p. 28)—"And now [KuL—H-AReTs] the *whole* earth was of [SheP*h*eH AK*h*aT*t*] one LIP and of [DeBeRIM AK*h*aDIM] one (set of) words."

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mately woven with their religion. And the explanation of the name of BaBeL (Babylon) itself completes the evidence that the recital had been written *ex post facto;* and, like so many myths, suggested by the double acceptation of a word.[2]

The confounding of the speech of the whole earth, could have been but the work of time, and of time very prolonged; because we now know what lengthened persistency, what vitality, is the property of tongues! One perceives in this antique legend a remembrance of the confusion which prevailed among the divers peoples, and amid the different races, who visited Babylon for political or commercial interests. As these populations must have been already very divided, their languages were parcelled out, at the period of the narrative, into a great number of dialects; and the simultaneous employment of all these idioms in one and the same city appropriately gave it the name of *City of confusion.* Babylon, moreover (like its modern successor, Bagdad of the present day), was situate almost at the point of partition of the two great branches of the white race, viz: the SHEMITES, or Syro-Arabians, on the one side, and of the JAPETIDÆ, or Irâno-Arians, on the other. The valley of *Shinâr* was then, therefore, as the frontier-line betwixt two races who possessed some traditions of a common origin; and the Biblical mythos of the "Tower" had for its object an explanation of the forgotten motives of their separation.

Certainly, if one were to take the account of Genesis to the letter, it would be necessary to suppose that the first men had not yet attained more than the first degrees of speech, and that their idiom was then of great simplicity. Now, this primitive idiom ought to

[2] [It is an amusing coincidence that, while the above scientific passages by my erudite friend, M. MAURY, are in the stereotyper's hands, the religious and profane press of the United States should be ringing with the joyful news of the actual discovery, on the classic plain of Arbela too, of "that *Titanic* structure" (as the enthusiastic penny-a-liner well terms it), the "*Tower of Babel*"! "Surprising," indeed, would it be were such discovery authentic. It becomes still more "surprising" in view of the palpable anachronisms by which this pious writer betrays his total ignorance of the nature, epochas, and results, of cuneiform researches: but, what seems most "surprising" is, that this newest *canard* of some adolescent missionary writing to Boston (the "modern Athens") from "Beirut, Dec. 8, 1856," should travel the rounds of the whole press of America without (so far as I can learn) one word of critical commentary, or exposure of its preposterous fallacies. Those who, even in this country, follow step by step each discovery made in Assyria, for account of the Imperial Government, by the erudite and indefatigable MONSIEUR PLACE, as it is announced at Paris, are perfectly aware that every newly-examined "tower" in that region (besides being long posterior in age to the *last* built of 67 Egyptian pyramids) only affords additional "confirmations" of the *modus* through which,—during the Babylonish captivity, and duly registered in passages of Hebrew literature written *after* the "school of Esdras" established itself at Jerusalem—this *myth* of the "Tower of BaBeL," as shown above, arose in the Israelitish mind. Compare *Types of Mankind*, 1854, pp. 297, 506, 559-60:—G. R. G.]

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have preserved itself the least altered in that very country where languages had been one at the beginning. And yet, the Hebrew and Chaldæan tongues, which were those of these countries, are very far from belonging to what may be called the first floor in the formation of language. The Chinese, and the languages of Thibet as well as of the trans-Gangetic peninsula, have held to much more of the type of primitive tongues, than have those of the Semitic stock. Analogies infinitely greater ought to be perceived among the most ancient languages—Hebrew, Egyptian, Sanscrit, Chinese; inasmuch as they should be much nearer to the source. Albeit we meet with nothing of the kind; and the style of Genesis no more resembles that of the Chinese "*Kings*," than the language of the *Rig-veda* approaches that which the hieroglyphics have preserved for us. Amidst these idioms there exists nothing but those identities that are due to the use of onomatopees, which was more frequent in primitive times than at the present day. The grammatical forms are different. Now, let us note that—such is the persistency of these forms in languages—the Greek and the German, which have been separated from the Sanscritic stem for more than 3000 years, have preserved, notwithstanding, a common stock of grammar. How much richer should not this stock have been amongst those languages of which we cited the names above.

Besides, even were the similar words of these primitive idioms much more numerous than a few biliteral and monosyllabic onomatopees, this would be far from sufficing to establish unity. Many similar words result, in tongues the most diverse, from the natural (*liaisons*) connections that certain sounds have with such or such another sensation. Between the word and the perception, there are very many secret analogies that escape us, and which were more decided when man lived in closer contact with nature. This is what the learned historian of Semitic tongues, M. Ernest Renan,[3] has judiciously remarked. Primitive man endeavored to imitate everything that surrounded him; because he lived altogether externally. Other verbal resemblances are the effect of chance. The scale of sounds in human speech is too little extended, and the sounds themselves merge too easily one into another, to prevent the possibility of the production of a fortuitous affinity in a given case.

Similitudes, to be veritable, ought to be grounded upon principles more solid than a few rare analogies. And these resemblances do not exist among those languages carried, according to the *ipse dixit* of the slavish interpreters of Genesis, from the valley of Shinâr to the four corners of the world. The constitution of the tongues of

[3] *Histoire et Système comparé des Langues Sémitiques*, Paris, 8vo., 1re partie, 1855.

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each family appears as a primitive fact, of which we can no more pierce the origins than we can seize those of the animal species. In the same manner that creation has sported amid the infinite varieties of one and the same type, so human intelligence has manifested itself through a multitude of idioms which have differently rendered its conceptions and its ideas.

SECTION II.

The ancient grammarians, who submitted speech to a logical and reasoned analysis, had figured to themselves that, in its formation, the human mind must have followed the rational march indicated by reason. An examination of the facts has proved that there happened nothing of the sort.

Upon studying a tongue at the divers epochs of its grammatical existence, it has become settled that our processes of logic and of analysis were unknown to the first men. Thought presented itself at first under a form at one and the same time confused and complex, in which the mind had no consciousness of the elements of which it was composed. Sensations succeeded each other so rapidly that memory and speech, in lieu of reproducing their signs separately, reflected them all together in their simultaneous action. Thought was wholly sympathetic. That which demonstrates it is, that the most ancient languages offer this character in the highest degree. In them the word is not distinguishable from the phrase,—otherwise speaking, they talked by phrases, and not by words. Each expression is the complete organism, of which the parts are not only appendices one of another, but are inclosed within each other, or are tightly interlocked. This is what philologists have termed *agglutination*, *polysynthetism*. Such manner of expressing oneself is doubtless little favorable to perspicuity; but, besides that the first men were far from possessing the clear and precise ideas of our time, their conception was sufficiently simple to be seized without great labor of reflection. Furthermore, men, without doubt, then understood each other rather by intuition than through reasoning. What they sought for was an intimate relation between their sentiments and those vocal signs, by the help of which the former could be manifested; and these relations once established, they were perceived and comprehended like the play of the features, like the meaning of a gesture, rather spontaneously than through analysis of their parts.

In whatever method we would explain to ourselves, however, this primitive characteristic of human speech, it is now-a-days not the

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less determined. The history of languages is but the continual march from synthesis towards analysis. Everywhere one beholds a first idiom giving place to a vulgar tongue, that does not constitute, to speak correctly, a different idiom, but which is a vernacular in its second phasis, that is, at a period more analytical. Whilst the primitive tongue is overloaded with flexions in order to express the more delicate relations of thought, richer in images if perhaps poorer in ideas, the modern dialect is clearer, more explicit,—separating that which the ancients crowded together; breaking up the mechanisms of the ancient tongue so as to give to each idea, and to each relation, its isolated expression.

And here let not the expressions be confounded with the words. The *words*, otherwise called the elements, that enter into the expression, are short, generally monosyllabic, furnished nearly all with short vowels or with simple consonants; but these words disappear in the *expressions* within which they enter;—one does not seize them more than can the eye, in the color green, distinguish the blue and yellow. The composing words are pressed (*imbricated*, to speak with botanists), to such degree, that one might call them, according to the comparison of JACOB GRIMM, blades of herbage in a grass-plot. And that which takes place, for the composition of the expressions, happens also as regards the pronunciation of the words that so stringently cling to them, viz: the same simplicity of sounds, inasmuch as the expression must nevertheless allow all the parts of its organism to be seized. "No primitive tongue," writes M. JACOB GRIMM, in his memoir on the origin of speech, "possesses a duplication of consonant. This doubling arises solely from the gradual assimilation of different consonants." At the secondary epoch there appear the diphthongs and breakages (*brisements*); whereas the tertiary is characterized by softenings and by other alterations in the vowels.

Above all, it is the *Sanscrit* which has made evident these curious laws of the gradual transformation of languages. The Sanscrit, with its admirable richness of grammatical forms, its eight cases, its six moods,—its numerous terminations and its varied forms enouncing, alongside of the principal idea, a host of accessory notions—was eminently suited to the study of the growth and decline of a tongue. At its *début*, in the Rig-veda, the language appears with this synthetic character; these continual inversions, these complex expressions that we just now signalized as conditions in the primordial exercise of thought. Afterwards follows the Sanscrit of the grand epopees of India. The language had then acquired more suppleness, whilst preserving, nevertheless, the rigidity of its pristine processes: but soon the grammatical edifice becomes decomposed. The *Pali*, which

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corresponds to its first age of alteration, is stamped with a remarkable spirit of analysis. "The laws that presided over the formation of this tongue," writes EUGÈNE BURNOUF,[4] "are those of which the application is discernible in other idioms, at diverse epochas and in very different countries. These laws are general, inasmuch as they are necessary. Let the Latin, in fact, be compared with the languages which are derived from it; the ancient Teutonic dialects with the tongues of the same origin; the ancient Greek with the modern; the Sanscrit with the numerous popular dialects of India; and the same principles will be seen to develop themselves, the same laws to be applicable. The organic inflections of the *mother* tongues subsist in part, but in an evident state of alteration. More generally they disappear, and are replaced; the cases by particles, the tenses by auxiliary verbs. These processes vary from one tongue to another, but the principle remains the same. It is always analysis, whether a synthetical language finds itself suddenly spoken by barbarians who, not understanding the structure, suppress and replace its inflexions; or whether, abandoned to its own course, and by dint of being cultivated, it tends towards decomposition, and to subdivide the signs representative of ideas and of the relations themselves."

The *Prakrit*, which represents the secondary age of alteration in ancient tongues, is submitted to the same analogies. On the one hand, it is less rich; on the other, simple and more facile. Finally, the *Kawi*, ancient idiom of Java, is a corruption of the Sanscrit; wherein this language, deprived of its inflexions, has taken in their place the prepositions and the vernacular dialects of that island. These three tongues, themselves formed through derivation from the Sanscrit, soon undergo the same lot as their mother: they become, each in its turn, dead, learned, and sacred languages,—the Pali, in the isle of Ceylon and in Indo-China; the Prakrit among the Djainas; the Kawi in the islands of Java, Bali and Madoura; and in their place arise in India dialects more popular still, the tongues *Gours*, *Hindee*, *Cashmerian*, *Bengalee*, the dialect of Guzerat, the *Mahratta*, &c., together with the other vulgar idioms of Hindostàn, of which the system is far less learned.[5]

Languages of the regions intermediary between India and the Caucasus offer, in their relation and affiliation, differences of the same order. At the more ancient periods appear the *Zend* and the *Parsi*, bound together through a close relationship with the Sanscrit, but corresponding to two different developments of the faculty of

[4] *Essai sur le Pali*, par E. BURNOUF et CHR. LASSEN.

[5] ERNEST RENAN, *Op. cit.*, "de l'origine du langage," p. 22.

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speech. The Zend, notwithstanding its traits of resemblance with the Vedic Sanscrit, allows our perceiving, as it were, the first symptoms of a labor of condensation in the pronunciation, and of analysis in the expression. It wears all the external guise of a tongue with flexions (*langue à flexion*); but at the epoch of the Sassanides [A. D. 224 to 644] as M. SPIEGEL remarks, it already commences to disrobe itself of them. The tendency to analysis makes itself by far more felt in the old Persic, or Parsi; and, in modern *Persian*, decomposition has attained its ultimate term.

We might reproduce the same observations for the languages of the Caucasus, the *Armenian* and the *Georgian;* for Semitic tongues, by comparing the *Rabbinical* with the ancient *Hebrew;* but what has been already said suffices for the comprehension of the fact.

The cause of these transformations is found in the very condition of a tongue, in the method through which it moulds itself upon the impressions and wants of the mind,—it proceeds from its own mode of generation. An idiom is an organism subject, like every organism, to the laws of development. One must not, writes WILHELM VON HULMBOLDT, consider a language as a product dead and formed but once; it is an animate being and ever creative. Human thought elaborates itself with the progress of intelligence; and of this thought, language is a manifestation. An idiom cannot, therefore, remain stationary; it walks, it develops itself, it grows up, it fortifies itself, it becomes old, and it reaches decrepitude.

The tongue sets forth with a first phonetic radical, which renders the sensation in all its simplicity and its generality. This is not yet a verb, nor an adjective, nor a substantive; it is a word that expresses the common sensation that may lie at the bottom of these grammatical categories; which translates the sentiment of welfare, of pleasure, of pain, of joy, of hope, of light, or of heat. In the use that is made of speech, there is doubtless by turns a sense verbal or nominal, adverbial or qualifying; but nothing, however, in its form indicates or specifies such a part (*rôle*). Very simple languages are still nearly all at this elementary stage. It is at a later day only that the mind creates those forms which are called members of a discourse. These had existed without doubt virtually, but the intelligence did not feel the need of distinguishing them profoundly by an essential form. Subsequently there forms went on multiplying themselves; but their abundance no less than their nature has varied according to countries and to races. Sometimes it is upon the verb that imagination has exhausted all the shades of expression; at others it is to the substantive that it has attributed these modifications. Mind has been more or less inventive, and more or less rational: it has

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seized here upon delicacies which completely escaped it there; and in the clumsiest tongues one remarks shadowings, or gradations, that are wanting to the most refined. Of this let us give an example: —the Sanscrit is a great deal richer than Greek in the manner by the aid of which it expresses the relationship of the noun to a phrase, and the relations of words between themselves. It possesses a far deeper and much purer sentiment of the nature of the verb and of its intrinsic value: yet, notwithstanding, the conception of the mood in a verb, considered as distinct from time, escaped it, — the verbal nature of the infinitive remained to it unknown. Sanscrit in this respect, therefore, yields to Greek, which, moreover, is united to it by very tight bands.

Thus then, human intelligence did not arrive in every language to the same degree, and consequently it did not create the same secondary wheel-work. The general mechanism presented itself everywhere the same; because this mechanism proceeds from the internal nature of our mind, and this nature is the same for all mankind.

The genius of each tongue, then, marked out its pattern; and this genius has been more or less fecund, exhibits more or less of mobility. Words have constantly represented the same order of objects, because these objects do not change according to countries or according to races; but they are offered under aspects the most varied, and these aspects have not always been identical under different skies and amid diverse societies. Hence the creation of words in unequal number to represent the same sum-total of known objects. The brilliant imagination of one people has been a never-failing source of new words, of novel forms; at the same time that, amongst others, the idea has remained almost embryonic, and the object ever presented itself under the same aspect. If given impressions were paramount, the words by which they were translated became greatly multiplied.

In the days of chivalry there was a host of expressions to render the idea of *horse*. In Sanscrit, the language of Hindostân, where the *elephant* plays a part as important as the horse among ourselves, words abound to designate this pachyderm. Sometimes it is denominated as "the twice-drinking animal," sometimes as "he who has two teeth;" sometimes as "the animal with proboscis." And that which happens for substantives occurs also for verbs. Among the American tongues, spoken by populations who had few objects before their sight, but whose life consisted altogether in action and feeling, verbal forms are singularly multitudinous. On the opposite hand, in Sanscrit and in Greek, which were spoken in the presence

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of a civilization already advanced, amid an infinitude of productions of nature or of industry, the nouns take precedence over the verbs. Here the richness of the cases dispenses with the rigorous sense of prepositions, as occurs in Greek; whereas among ourselves, who in French possess no longer any cases, the meaning of the phrase exacts that our prepositions should be well defined. Hence, then, the life itself of a people has been the source of the modifications operated in its tongue, and each idiom has pursued its development after its own fashion.

Two causes combine towards effecting an alteration of languages, viz: their development within themselves, and their contact with foreign idioms,—above all with such as belong to families altogether distinct; but the second, compared to the first, is of small account. The influence of neighboring foreign tongues introduces some new words and sundry locutions, certain "idiotisms;" but it cannot, without difficulty, inject into alien speech those grammatical forms which are its own heritage. Its influence re-acts much more upon the style than on the grammar. If two languages of distinct families are spoken by neighboring populations, or by those living in perpetual contact, it ordinarily happens that the most analytical tongue forces its processes to penetrate into that which is the less so. Thence it is that the German, brought into contact with the French, loses a portion of its synthetical expressions, as well as the habitual use of those compound phrases which it received from the Asiatic speech whence it issued; and that the French, when spoken by Negroes, is stripped of its grammatical richness, and becomes simplified almost to the level of an African tongue. In the same manner the Armorican, or *Bas-Breton*, whilst preserving the ground-work of Celtic grammar, is now-a-days spoken under a form that recalls more of French than of the ancient Armorican.

One sees, therefore, that the crossing of languages, like that of races, has really not been very deep. Once invaded by a stranger-tongue, one of a nature more logical in its processes, the old language either has not undergone more than superficial alterations, or has disappeared entirely, without bequeathing to the idiom which followed it any inheritance but that of a few words. Such is what happened to Latin as regards the Gallic (*Gaulois*). This Celtic tongue is completely supplanted by the idiom of the Romans, and has left no other vestiges of its existence than a few words, together with, doubtless, some peculiarities of pronunciation also that have passed into the French. One perceives equally well in English, here and there, words and locutions that appertain to the Welsh; and which,

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in consequence, must be a heritage of the tongue whilom spoken by the Kelts of Albion.

If the grammatical dispossession of a language could have been wrought gradually, one ought to find some mixed phrases at the living period of those tongues that have been driven out by others. Now, such is not the case. The *Basque*, for example, foreign in origin both to French and Spanish, has indeed been altered through the adoption of a few words and a few locutions borrowed from these languages, by which it is surrounded, and, as it were, invested; but it evermore clings to the basis of its structure, the vital principle of its organism; and a Franco-Basque, or a Basco-Spanish, is not spoken, nowhere has ever been spoken. Modern Greek has appropriated many words from Turkish, no less than from Italian, as well as some expressions of both tongues; but its entire construction remains fundamentally Hellenic, notwithstanding that it belongs to the analytical period, and that the ancient Greek was still emerging from the synthetic. Again, the Persian, which is so imbued with Arabic words that writers of this language often intercalate sentences wholly Arabic in their discourses, remains, nevertheless, completely Indo-Germanic as concerns its grammar. But we have not seen that this tongue has ever associated the Persian declension with the Arabic conjugation, or yoked the Persian prepositions to Semitic affixes and suffixes. Finally, the Osmànlee Turkish, besides incorporating words of every language with which the Turks have been in contact for more than a thousand years, has purloined all its scientific nomenclature from the Arabs, most of its polite diplomatic phrases from the Persians; but, whilst fusing Semitic as well as Indo-European exotic words into its *copia verborum*, the radical structure of its so-called Tartarian [or, Turanian] grammar, no less than its original vocabulary, is still so tenaciously preserved, that a coarse Siberian *Yakut* can even now, after ages of ancestral separation, communicate his simple ideas to the intelligence of a Constantinopolitan Turko-Sybarite.

All these considerations show us, therefore, that the families of tongues are assemblages (*des ensembles*) very distinct, and the results of a diversified order of the creative faculty of speech. This faculty does not, then, appear to us as absolutely identical in its action; and we must necessarily admit that it corresponds, under its different forms, to races of mankind possessing different faculties, as well for speech as for ideas. This is what the study of the principal classes or families of tongues will make still more evident; seeing that we shall find them in a relation sufficiently striking to the different human races.

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One of the most skilful philologists of Germany, M. A. F. Pott, Professor of Linguistics at the University of Halle, has recently combated (in a work entitled, "*The Inequality of Human Races, viewed especially as regards the Constitution of their Speech,*[5]) the hypothesis of a unique primitive language, whence all others are supposed to have issued; and he has shown that it has no more foundation than that which would make all the species of one and the same genus issue from a single individual, and all varieties from one primitive type. He has claimed for languages an ethnological character, suited to the classification of races, not less certain than the physical type and the corporeal forms. Perhaps even, he observes, the idiom is a criterion more certain than the physical constitution. Does not speech, in fact, reflect the intelligence better, — is not language more competent to give the latter's measurement, than can be gathered from the dimensions of the facial angle, and the amplitude of the cranium? A powerful mind may inhabit a slender and misshapen body, whilst a well-made tongue, rich in forms and *nuances*, could not take its birth among intellects infirm or degenerate. This observation of M. Pott is just; but it ought likewise to be allowed that the classification of languages offers, perhaps, more uncertainty than that of races considered physiologically. The truth of this remark of M. Pott must, nevertheless, be restricted; because speech is not the complete measure of intelligence, taken in the aggregate. It is merely proportionate to the degree of perception of relationships, of sensibility, and of memory: because we shall see, further on, that some peoples, very far advanced in civilization, could have a language very imperfect in its forms; at the same time that some savage tribes do speak an idiom possessing a certain grammatical richness.

SECTION III.

Philologists who have devoted themselves to the comparative study of the languages of Europe, MM. F. Bopp and Pott, in particular, have established the more or less close relationship of these tongues amongst each other. All, with the exception of some idioms, of which we shall treat anon, offer the same grammatical system, and a vocabulary whose words can be attached one to another through the rules of etymology. I say the *rules*, because etymology now-a-days possesses its own, and is no longer governed by arbitrary, often ingenious, but chimerical distinctions. Through the attentive com-

[5] *Die Ungleichheit menschlicher Rassen haupsächlich vom Sprachwissenschaftlichen Standpunkte, unter besonderer Berüchsichtigung von des Grafen* von Gobineau *gleichnamigen Werke;* Lemgo & Detmold, 8vo., 1856.

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parison of the changes that well-known words have undergone in passing from one language into another, modern philology has become enabled to grasp the laws of permutation as regards the letters, and the regular processes for the exchange of sounds. These facts once settled, it has become possible to trace backward words, in appearance strangely dissimilar, to a common root which stands forth as the type whence modifications have produced all these derivative words.

It is in the *Sanscrit* that this type has been discovered; or, at the very least, the Sanscrit presents itself under a form much more ancient than the European formations; and, in consequence, it approaches nearest to that type of which we can no longer grasp any but the diversified derivatives.

In like manner, the grammar of the languages of Europe, in its fundamental forms, is recognized in the Sanscrit grammar. This grammar, of which we specified above the character and richness, incloses, so to speak, in substance, those of all the European idioms. The elements which compose these idioms are like so many *débris* of a more ancient tongue, whose model singularly approximates to the Sanscrit. It is not, however, that the languages of Europe have not each their own riches and their individual genius besides. In certain points they are often more developed than the Sanscrit. But, taken in their collective amplitude, they are certainly branches more impoverished than that which constitutes the Sanscrit. These branches appertain to a common source that is called *Indo-European* or *Indo-Germanic*. The sap seems, nevertheless, to have exhausted itself little by little; and those branches most distant from the trunk have no longer anything like the youth, fulness, and life, which flow in the vessels of the branches of primary formation.

Hence the languages of Europe belong to a great family, that, at an early hour, divided itself into many branches, of whose common ancestor we are ignorant, but of whom we encounter in the Sanscrit the chief of one of the most ancient collateral lines. We have previously stated that the Persic (*Parsi*) and the Zend were two tongues very intimately allied to the Sanscrit. They are consequently sisters: and, whilst certain tongues of Europe, such as the Greek and the Shlavic languages, recall, in a sufficiently striking manner, the Sanscrit; others, the Germanic tongues, hold more closely to the Persic and the Zend.

Comparison of the languages of Europe has caused them to be grouped into four great classes, representing, as it were, so many sisters from the same mother, but sisters who have not been called to an equality of partition. The more one advances toward the East, the more are found those tongues that have partaken of the inheritance.

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Whilst the Sclavonic idioms, and in particular the Lithuanian family, have preserved, almost without alteration, the mould of which Sanscrit yields us the most ancient product, the Celtic languages, driven away to the West, remind us only in a sufficiently-remote manner of the mother-tongue; and, for a long time, it was thought that they constituted a group apart.

This distribution of languages in Europe, co-relative in their affinity with the antique idioms once spoken from the shores of the Caspian Sea to the banks of the Ganges, is an incontestable index to the Asiatic origin of the peoples who speak them. One cannot here suppose a fortuitous circumstance. It is clearly seen that these tribes issuing from Asia had impinged one against another; and the Celts, as the most ancient immigrants on the European continent, have ended by becoming its most occidental inhabitants.

We have been saying that the European languages of Indo-Germanic stock are referred to four families. We have already enumerated the Celtic, the Indo-Germanic, and the Shlavic tongues. The fourth family, which may be called *Pelasgic*, comprehends the Greek, the Latin, and all the languages that have issued from them. Let us examine separately the characteristics of these linguistic families, whose destinies, posteriorly to the populations which spoke them, have exercised such influence upon those of humanity.

The Greco-Latin group has received the name of Pelasgic, Greece and Italy having been peopled originally by a common race, the *Pelasgi*, whose idiom may be considered as the (*souche*) source of the Greek and the Latin. The first of these tongues is not, in fact, as had been formerly imagined, the "mother" of the other. They are simply two sisters: and if a different age is to be assigned to them, the Latin possesses claims to be regarded as the elder. Indeed, this language presents a more archaic character than the classical Greek. The most ancient dialect of the Hellenic idiom, that of the Æolians, resembles the Latin much more than the later dialects of Greek. Whilst, in this last tongue, the presence of the article announces the secondary period, at the same time that contractions are already numerous, the synthetical character is more pronounced in Latin; its grammatical elements have not yet been separated into so many different words; and the phraseology, as well as the conjugation and the most ancient forms of declensions, possess a striking resemblance to that which we encounter in the Sanscrit. The Latin vocabulary contains, over and above, a multitude of words whose archaic form is altogether Sanscrit. This language has moreover passed, in its grammatical forms and its syntax, through a series of transformations that we can follow from the most ancient epigraphic and poeti-

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cal monuments back to the authors of the IVth and Vth century before our era. Latin itself was nothing more than one of the branches of the ancient family of *Italic* tongues, and which comprehended three branches,—the *Japygian*, the *Etruscan*, and the *Italiot*. These again, in their turn, subdivide themselves into two branches: the first constituting the Latin proper, and the second comprising the dialects of the Ombrians, the Marses, the Volsciaus, and the Samnites.

We are acquainted with the Japygian tongue solely through some inscriptions found in Calabria, and belonging to the Messaprine dialect. Their decipherment is as yet little advanced; notwithstanding the labors that comparative philology has undertaken in these latter days:[7] but, what of it is understood suffices to exhibit to us an Indo-European tongue, which becomes recognizable in a much more certain manner in the inscriptions of the Italiot languages; that is to say, of tongues somewhat-closely allied to the Latin, and whose forms approximate already, in sundry respects, more to the Sanscrit.

The comparison of these last idioms to their Asiatic prototype permits us not merely to seize the relationship of the tribes that spoke them. It enables us to judge, also, of the degree of civilization which they had attained when they penetrated into Europe. In fact, as has been remarked by one of the most accomplished philologues of Germany, M. Th. Mommsen, those words that we discover at once with the same signification, in the different Indo-European tongues,—except, be it well understood, the modifications which became elaborated according to the inherent genius and the pronunciation of each of these languages—give us the measure of the social state of the emigrant race at the moment of its departure. Now, all the names of cattle, of domestic animals, for ox, sheep, horse, dog, goose,[8] are the same in Sanscrit, in Latin, in Greek, and in German. Hence, the Indo-European population knew, upon entering Europe, how to rear cattle. We see also that they understood the art of constructing carts, yokes, and fixed habitations;[9] that the use of salt[10] was common with them;

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[7] See on this subject the learned works of F. G. Grotefend, entitled,—*Rudimenta linguæ Umbricæ ex inscriptionibus antiquis enodata* (Hanover, 1835);—of S. Th. Aufrecht, and A. Kirchhoff, *Die Umblischen Sprachdenkmäler* (Berlin, 1839);—and of Th. Mommsen, *Die Unteritalischen Dialecte* (Leipzig, 1850).

[8] Sanscrit *gaus*, Latin *bos*, Greek βοῦς, French *bœuf*, English *beef*:—Sanscrit *avis*, Latin *ovis*, Greek οἶς, English *sheep*:—Sanscrit *œvas*, Latin *equus*, Greek ἵππος, English *horse*. The mutation of P into Q is again met with in passing from the Umbrian and the Sanscrit into Latin; for example, *pis* for *quis*; Sanscrit *hansas*, Latin *anser*, Greek χήν; and the same for *pecus*, *taurus*, *canis*, &c.

[9] Sanscrit *jugam*, Latin *jugum*, Greek ζύγον, French *joug*, English *yoke*:—Sanscrit *akshas*, Latin *axis*, Greek ἄξων whence ἅμαξα, French *char*, English *car*:—Sanscrit *damas*, Latin *domus*, Greek δόμος:—Sanscrit *vêcas*, Latin *vicus*, Greek οἶκος; English *house*.

[10] Sanscrit *saras*, Latin *sal*, Greek ἅλας, French *sel*, English *salt*.

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that they all divided the year into lunar months, and counted regularly up to more than 100,[11] according to the decimal system; and that they professed a worship similar to that depicted for us in the Rig-veda.

But, as a counter-proof,—the words that we simply encounter both in Greek and Latin, but which do not exist in the Sanscrit in their proper sense, and of which only a remote etymological radical can be discovered, become witnesses, in their own turn, for the progressions that had been accomplished in Europe. They unfold to us what had been the acquirements in common, which the Pelasgi possessed prior to their complete separation into Hellenic and into Italic populations.[12] We thence learn how it is that from this Pelasgic epoch dates the establishment of regular agriculture, — the cultivation of the cereals, of the vine and the olive. Finally, those words possessed by the Latin alone, but which the Greek has not yet acquired, display the progress accomplished by the Italic populations after they had penetrated into the Peninsula. For instance, the word expressing the idea of "boat" (*navis*, Sanscrit *nâus*), and which was subsequently applied to a "ship" (French *navire*, and by us preserved in *navy*, &c.), belongs to the three languages as well as that which renders the idea of "oar." The Pelasgi had, therefore, imported with them from Asia, acquaintance with transportations by water; but the words for *sail*, *mast*, and *yard*, are exclusively Latin. It was, consequently, the Italic people who invented (for themselves) navigation by sails; and this circumstance completes the demonstration, that it was through the north of the Italian peninsula that the Pelasgi must have penetrated into it.[13]

We are, unfortunately, still perplexed as to what was the precise idiom of these Pelasgi. It is, perhaps, in the living tongue of the Albanians, or *Skippetars*, that the least adulterated descendant of

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[11] The names of numbers are the same up to a hundred, and the numeral system is identical.

[12] [My colleague, M. MAURY, writes me that his *Histoire des Religions de la Grèce Antique* (2 vols. 8vo., publishing by Ladrange, Paris), is on the point of issue — Feb. 1857. It is the fruit of long years of research, and cannot fail to throw great light upon ante-Hellenic events. In another equally-interesting field, the *Mélanges Historiques* of our friend M ERNEST RENAN (now in press) will explore many points of contact, or of disunion, between Sanscritic and Semitic languages and history. — G. R. G.]

[13] [This interesting method of resuscitating facts long entombed in the ashes of antehistory, confirms the accuracy of DR. DAVID F. WEINLAND'S views, "On the names of animals with reference to Ethnology," in a paper read before the American Association for the Advancement of Science, last August. But I know of it only through a very condensed report (*New York Herald*, Aug. 26, 1856). — G. R. G.]

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this idiom must be sought for.[14] Notwithstanding the quantity sufficiently noteworthy of Greek and Shlavic words that has penetrated into the Albanian, a grammatical system, nearer to Sanscrit than the Greek affords, is encountered in it. Such, for example, is the declension of the determinate adjective through a pronominal appendix, —which is observed likewise in Sclavonic tongues, so approximate, on the other hand, to Sanscrit. The conjugation of the verb is very distinct from that in Greek, and denotes a system of flexion less developed.

I shall say nothing about the *neo-Latin* tongues, born from the decomposition of Latin, and which lost little by little the synthetical character and the flexions of their mother. I will but remark, that it is very curious to establish how the languages issued from this stock that have been spoken by populations whose national life is very slightly developed, are those which present an analytical constitution the least pronounced, and wherein the flexions have not became so greatly impoverished. The *Valaq* or *Roumanic*, the *Rheto-Romain* or dialect of the country of the Grisons, are certainly more synthetic, and grammatically less impoverished than French or Spanish. But, at the same time that these tongues have preserved their more complex character, they have become still more altered in respect to their vocabulary; and one feels in them very strongly the influence which intermixture of races exerts upon languages; otherwise called, the mingling of different tongues. The verb in the Rheto-Romain, for instance, is conjugated now-a-days in the future tense and in the passive form like a German verb.

The Sclavonic, or *Letto-Shlave*, tongues decompose themselves into several groups that correspond to different degrees of linguistic development. The *Lettish* group, or Lithuanian (which comprehends the *Lithuanian*, properly so called, the *Borussian* or ancient Prussian, and the *Lettic* or Livonian), answers to a period less advanced than the Shlavic branch; for example, the Lithuanian substantive has but two genders, whilst the Shlave recognizes three. The Lithuanian conjugation does not distinguish the third persons of the singular, of the dual and the plural. The Shlavic conjugation, on the contrary, clearly distinguishes seven persons in the plural and in the singular. But, by way of amends, the Lithuanian keeps in its declension the seven cases and the dual, so characteristic in Sanscrit.

[14] See on this subject the *Études Albanaises* of M. J. von Hahn published at Vienna in 1854. M. A. F. Pott has made the observation, that the *Valaq* idiom preserves probably some vestiges of this antique language of Illyria; the use of the definite article, notably, seems in Wallachian to proceed from sources foreign to Latin.

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These cases are even occasionally identical with those of this last tongue. The Sclavonic, or Shlave, idioms properly so denominated, subdivide themselves into two branches, that of the south-west and that of the west. The first comprises the *Russian*, the *Bulgarian* which furnishes us with the most ancient Shlavic form (approximating very much to the idiom termed *Cyrillic* or ecclesiastical, in which are composed the most ancient monuments of the Christian literature of this race), the *Illyrian*, the *Serbe* or *Servian*, the *Croat*, and the *Slovine* spoken in Carinthia, in Carniola, a part of Styria, and in a canton of western Hungary. The Shlavic tongues of the west embrace the *Lekh* or Polish, the *Tcheq* or Bohemian, the *Sozab* or Wendic (popular dialect of Lusace), and the *Polab*,—that has disappeared like the ancient Prussian, and which was spoken by the Sclavonic tribes who of yore were spread along both banks of the lower Elbe.

The Germanic languages attach themselves (we have already said), more to the Zend and the Persic than to the Sanscrit. The Persic and Zend are part of a group of tongues that is designated by the name of *Iranian* languages. It embraces again many other idioms, of which several have disappeared. To it are attached notably the *Affghàn* or *Pushtu*, the *Beloodchi* spoken in Beloodchistàn, the *Kurd*, the *Armenian*, and the *Ossete*—which seems to be nothing else than the language of those people known to the ancients by the name of Albanian, the *Aghovàns* of Armenian anthors. This narrow bond between the Germanic and the Iranian languages tells us plainly whence issued the populations which spread themselves over central Europe, and that very likely drove before them the Celts. The affinity that binds these Germanic tongues amongst each other,—that is to say, the ancient *Gothic*, or dialects of the German properly so called, to which cling the *Flemish* and the *Dutch*, the *Frison* and the *Anglo-Saxon*, and lastly the old *Icelandic* and its younger sisters the *Danish* and *Swedish*—is much closer than that observable between the Shlavic and amongst the Pelasgic languages. Four traits in common, as Mr. Jacob Grimm has noticed, attach them together, viz: variation of sound, which the Germans call "ablaut;" metathesis, or transposition; and finally, the existence of two different forms of verbs and of nouns, that are denominated "strong declension or conjugation," and "weak declension or conjugation."

An attentive comparison of the laws of the Sanscrit grammar and vocalization, with those of German grammar and vocalization, has revealed some curious analogies which explain those resemblances that had been, even anciently, perceived between German and Greek.

Celtic languages are known to us, unhappily, only through some

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doubtless very degenerate representatives of that powerful family, viz. the *Gœlic* or Welsh, and the Armorican or *Bas-breton* (which are in reality no more than dialects of the *Kimric* tongue), the *Irish*, the *Erse* or Gadhelic idiom spread over the Scottish Highlands, and the *Manx* or idiom of the little isle of Man,—not forgetting the lost Cornish dialect. We hardly know anything of the tongue spoken of erst by our fathers, the Gauls (*Gaulois* or *Galls*); except that the small number of words remaining to us suffices to classify it with the same family. Of all the branches of the Indo-European family this Celtic is, in fact, the one whose destinies have been the least happy, and the most confined. Its tongues have come to die along the shores of the Ocean that opposed an impassable barrier to renewed emigration of those who spoke them. Invaded by the Latin or German populations, the Keltic races have lost, for the most part, the language that distinguished them, without, on that account, losing altogether the imprint of their individuality.

The history of the Indo-European languages is, therefore, the surest guide we can follow in endeavoring to re-construct the order of those migrations that have peopled Europe. This community of language that unveils itself beneath an apparent diversity, can it be simply the effect of a commonality of organization physical and intellectual? The inhabitants of Europe,—do they belong solely to what might be termed the same formation? It would, if so, become useless to go searching in Asia for their common cradle. The fact is in itself but little verisimilar; but, here are some comparative connections of another order that come to add themselves to those which languages have offered us, and to confirm the inductions drawn from the preceding data.

On studying the mythological traditions contained in the Vedas, as well as in the most ancient religious monuments of India and Persia, there has been found a multitude of fables, of beliefs, of surnames of gods and some sacred rites, some variants of which, slightly altered, are re-encountered in the legends and myths of antique Greece, of old Italy, of Germany, Scandinavia, Russia, and even of England. It is only since a few years that these new analogies have been brought to light; and the Journal directed by two distinguished Orientalists of Berlin, MM. Th. Aufrecht and Adalbert Kuhn, has been the chief vehicle for their exposition. One of the first Indianists of Germany, M. Albert Weber, has also contributed his portion to this labor of (*rapprochement*) comparison; of which, in France, the Baron d'Eckstein learnedly pursues the application.

I have already said that the names of gods met with in Greek and Latin indicate to us a worship (*culte*) among the Pelasgi altogether

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similar to that of which the Rig-veda is the most ancient monument. It cannot, of course, be expected that I should here enumerate all these names. I will, however, select out of their multitude, some of a nature suited to cause these analogies to be understood.

The God of Heaven (or of the sky) is called by the Greeks *Zeus Pater;* and let us here notice that the pronunciation of Z resembles very much that of D, inasmuch as the word *Zeus* becomes in the genitive *Dios.* The Latins termed the same god *Dies-piter* or *Jupiter.* Now, in the Veda, the God of Heaven is called *Dyaushpitar.* The Greeks designated the sky as *Ouranos,* and invoked it as a supreme god. And, it must again be noted that, in their tongue, the V does not exist, but is always rendered by OU. In the Veda, on the other hand, it is termed *Varouna.* The Earth always receives — among the Greeks, the Latins, and the Germans,—the epithet of "mother;" and likewise under this surname is it invoked in the Vedic hymns.

But these are, after all, only similitudes of names: some complete myths connect amongst each other all the Germanic populations. These myths, too, have become invested, amid each one of the latter, with a physiognomy slightly distinct; because every thing in *mythos* is shifting and changeable: and, even among the same people, myths modify and transform themselves according to times and according to places; but, a basis,—a substratum, of ideas in common remains; and it is this residue which permits us to grasp the original relationship of beliefs. Well,—we might cite a host of these fables that have run over the whole of Europe, but ever preserving the same traits. I will give one of them, just by way of specimen:—

Grecian antiquity has recorded various legends concerning a marvellous artisan yclept Δαίδαλος (the "inventive") who occasionally becomes confounded with the God of fire, personification of lightning (and the thunderbolt), *Hephæstos*; whom we call, after the Latins, *Vulcan.* The Aryas (proper name of those Arians who composed the Sanscrit Vedas) also adored, as a blacksmith-god, the personified thunderbolt. They termed him *Twachtrei;* and the physiognomy of this personage possesses the greatest analogies with that of Vulcan. *Twachtrei* is called the "author of all works;" because fire is the grand agent of human industry; and he is *Ignipotens,* as says Virgil speaking of Vulcan. And, in the same manner that this divinity had forged the thunderbolt of Jupiter, and executed the cup out of which immortals quaffed ambrosia, *Twachter'* had forged the thunderbolt of Indra, god of the sky (or Heaven) in the Vedic pantheon; and was the maker of that divine cup whence was poured out the *soma,* —which was, at one and the same time, ambrosia and the libation.

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Twachter' has for assistants, or for rivals, the Ribhavas,[15] — other divine artists, who play a considerable part in the songs of the Veda and in Hindostanic history; wherein one recognizes numberless traits common to the Hellenic legend of the Cyclopians, the Cabiri, the Telchines, and in particular to that of *Dædalus*. Now, these same legends are picked up here and there from different points of Europe, in localities the most distant, and between which no interchange of ideas could anciently have occurred. The celebrated blacksmith "Wieland," or *Velant*, so famous in the traditions of northern Germany,—who, in Scandinavia, is termed *Völund*—is a compound of Vulcan and *Dædalus*, no less than another heir to the Vedic traditions about *Twachter'*.

The adventure so classically-renowned of the Cretan hero, and of his son *Icarus*, reproduces itself, with but trifling variations, in that of *Völund*. He is also shut up within the labyrinth; but Scandinavian tradition no longer places in Crete (Candia) this marvellous edifice. It is on an island named "Sävarstadr." The Greek fable gives to *Dædalus* wings, in order that he may escape from his prison. In the story of the people of the north, it is a shirt of feathers with which he clothes himself. His brother *Eigil*, here substituted for Icarus, wishes to try the power of this feathery dress; and perishes like the son of *Dædalus* — victim of his rashness.

A scholiast teaches us, that the celebrated Greek voyager Pytheas had found at the islands of Æolus, now the Lipari-isles, the singular custom of exposing, near the volcano (Stromboli) in which it was believed that *Vulcan* made his residence, the iron that one desired to see fashioned into some weapon or instrument. The rough metal was left during the night thus disposed, and upon returning on the morrow, the sword, or other implement, was found newly manufactured. An usage of this kind, founded upon a similar credence, is spread through a number of Germanic countries. It is no longer Vulcan, but *Wieland*, a cripple like him moreover, who becomes the mysterious blacksmith. In Berkshire (England) they used formerly to show, near a place called White-Horse hill, a stone, whereupon, according to the popular notion, it was enough to deposit a horse-shoe with a piece of silver, and to tie near it the animal to be shod; and, on coming back, the operation was found done. The marvellous farrier *Wayland-Smith*, as he was called, had paid himself with the silver money; and the shodden brute was ready to be led away. In many cantons of Germany, analogous stories used to be told: only,

[15] On this point consult the learned work of M. F. Neve, entitled *Essai sur le mythe des Ribhavas*, Paris, 1847.

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the name of the invisible blacksmith underwent changes, and imagination embroidered upon the common web some particular details.

Wieland, who is also named "Geinkenschmid," is associated in certain localities, with a bull; which recalls to mind that one manufactured by *Dædalus*, to satisfy the immodest passion of Pasiphae, the "all-illumining" spouse of Minos—whom Hellenic tradition makes a king of Crete, but who is encountered both amidst the Arians and the Germans. Among the Aryas he bears the name of *Manou*, or rather of *Manus*. He is a legislator-king; having for his brother *Yama*, the god of the dead; just as Minos's brother was Rhadamanthus (Rhada-*man*-thus). This last, as well as Yama, is represented with a wand in his hand, and judging in the infernal regions. Among the Germans, *Manus* is called *Mannus*. He is also (a *man* and) an ancient king, who, like the Indian *Manus*, is an ADAM, the first author of mankind.

I must refer to the learned work of M. A. KUHN those who wish to penetrate deeper into these curious comparisons. The glimpse I have just given, shows how much of authority they add to those analogies that the comparative study of languages has furnished us. Our German philologists have felt this, inasmuch as they insert, in the same periodical repertory, mythological researches of this kind, purely linguistic. I would add, that such comparative examinations enable us to comprehend better the nature and the history of the Hellenic religion in particular, and the religions of antiquity in general. This method yields us the key to a multitude of myths which we could not decipher did we not mount up to their Asiatic *origines*. Allow me yet again to offer a short example.

According to the Grecian fable, *Acmon* was the father of *Ouranos*. The motive for this filiation had not until now been pierced through. Why should the most ancient of the gods, their supreme father, have had an "anvil" for his own father? such being the Greek signification of this word. Sanscrit can alone tell us,—as M. R. ROTH, one of the most ingenious and skilful Orientalists of Germany, has remarked. The Sanscrit form of this Greek name is *Açman*, and the word signifies, at one and the same time, "anvil" and "sky" (or *heaven*). The myth becomes intelligible. Here, as in innumerable other cases, the god receives for his progenitor another personification, from the same part of nature that he represents. And, in the same manner that *Rhea* has engendered *Demeter*,—that is to say, the "mother-earth," because *Rhea* (as the meaning of her name indicates) is a personification of the Earth; so, likewise, as *Helios* (the sun) had for his father *Hyperion*, that is to say, again the sun,—did *Ouranos* (the sky) receive birth from *Acmon*,—whose name

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has the same acceptation. But, whilst the word *Acmon* passed into Greek with the sense of "hammer,"—against which that of "anvil" was easily interchangeable—it lost, among the Hellenes, the meaning of "sky," and thus the myth, transported into Europe, ceased to possess significance any more.

In the presence of analogies and connections so conclusive, it is impossible to suppose simply that a population of the same race, and with the same fundamental stock of language, was spread from India and Persia to Britain and Erin: we must necessarily suppose that the peoples coming from Asia had imported into Europe their idiom and their traditions. Must it hence be admitted that this portion of the earth had not then been already populated; and that those Asiatic tribes, which took the leadership of this long defile of conquerors, found nothing before them but solitudes?

It is again the study of languages that will furnish us with the reply.

I have stated that all the idioms of Europe belong to the Indo-European stem; three groups (or if you will, three languages), forming the only exception; without speaking, be it well understood, of the Turkish, scarcely implanted on this side of the Bosphorus, and whose introduction dates but from a few centuries; nor comprising, either, the Maltese,—solitary vestige of Saracenic dominion in Italian lands.

The first group is represented by the *Basque* tongue, or the *Eiskari*, which embraces but two dialects. The second is the *Finnish* group, comprising the *Lapponic*, the Finnic or *Suomi*, and the *Esthonian* spoken in the northern part of Livonia, as also at the islands of Œsil and Dagö. Lastly, the third group reduces itself to the *Magyar*, or Hungarian, which links itself to the Finnish group through an indirect relationship.

We know how the Magyar introduced itself into Europe. It is the tongue of the ancient Huns, who, mingling with the populations of Dacia and Pannonia, gave birth to the Hungarians; but we are less advanced as regards what concerns the history of the Finnish and the Basque languages.

Wilhelm von Humboldt, who devoted himself to researches of great interest upon the Basque tongue, has shown that this language had of yore a much more extensive domain than the little corner of land by which it is now confined. Names of places belonging to the whole of southern France, and even to Liguria, prove that a population of Euscarian idiom was anciently spread from the Alps to the occidental extremity of Spain. These people were the *Iberes*, Iberians, *yonderers;* and the Basque is the last relic of their tongue.

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The labors of the skilful philologue of Beziers, M. BOUDARD, have put the finishing stroke in bringing this fact to light.

The Celts, or Kelts, encountered before them, therefore, the Iberes; whom they pushed onward into the south of Gaul, where we find them established in the time of Cæsar. They amalgamated with them, as the name of *Celt-Iberia* teaches; and very certainly in Languedoc also, no less than in Aquitania. These Iberians—a nation lively and impressionable, vain and stirring—may well have infused into the Keltic blood that element of restlessness and levity which one perceives in the Gauls, but which is alien, on the contrary, to the true Kelt,—at once so attached to his traditions, and ever so headstrong in his ideas.

The Basque tongue, otherwise called Iberian, resembles in nothing the Indo-European idioms. It is "par excellence" a polysynthetical language,—a tongue that, in its organism, reminds one, in a sufficiently-striking manner, of the languages of America. It composes "de toutes pièces" the *idea-word;* suppresses often entire syllables; and, in this work of composition, preserving sometimes but a single letter of the primitive word, it presents those adjunctive particles that by philologists are termed postpositions—as opposed to prepositions—which serve to distinguish cases. In this manner is it that the Basque constructs its declension. This new characteristic re-appears in another great family of languages which we shall discuss anon, viz: the Tartar tongues belonging to central Asia.

The Basque, consequently, denotes a very primitive intellectual state of the people who occupied western Europe previously to the arrival of the Indo-Europeans; and, were it allowable to draw an induction from an isolate characteristic, one might suppose that the Iberes were, as a race, allied to the Tartar.

But this hypothesis, daring as it is, receives a new degree of probability from the study of the second group of European languages, foreign to the Indo-Germanic source, viz: the Finnish group.

This group is not restricted to a few idioms on the north-east of Europe. It extends itself over all the territory of northern Russia even to the extremity of Kamtschatka. Comparison of the numerous idioms spoken by tribes spread over Siberia has revealed a common bond between them, as well of grammar as of vocabulary. These tongues, which might be comprehended under the general appellation of *Finno-Japonic* (from the name of those occupying upon the map the two extremes of their chain), offer this same characteristic of agglutination that has just been signalized in the Basque; but in a much less degree. They make use of that curious system of postpositions which appertains also to the ancient idiom of the Iberes. Those ter-

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minations destined to represent cases are replaced by prepositions distinct from the word,—which, in our languages, precede, on the contrary, the words of which they modify the case. It must be noted that the apparition of these postpositions invariably antecedes, in the gradual formation of tongues, the employment of cases; whereas, prepositions replace these when the tongue becomes altered and simplified. Cases are nothing, indeed, but the result of the coupling of the postposition to words. The organic march of the declension presents itself, therefore, throughout the evolution of languages, in the following manner, viz: at first the root (or radical), ordinarily monosyllabic; next, the radical followed by postpositions,—corresponding to the period of agglutination; again, the radical submitted to the flexion,—corresponding to the ancient period of our Indo-European tongues; and, finally, the preposition followed by the radical,—corresponsive to the modern period of these same languages. It is to be noted that the postposition (in relative age) never returns subsequently to the preposition,—any more than can the milk-teeth grow again in an old man after the loss of his molars.

Thus, then, the age of the Finnish tongues and of the Basque is fixed. They were idioms of analogous organization, and of which the arrest of development announces a sufficiently feeble degree of intellectual power.[16] The brethren of the Aryas and Iranians, upon penetrating into Europe, had only, therefore, to combat populations living in a state analogous to that in which we find the hordes of Siberia,—species of Ostiaks or of Vogouls, of Tcheremiss or of Mordvines. With their intellectual superiority, the people coming from occidental Asia had no need of being very numerous to vanquish such barbarous tribes; with whom, doubtless, they frequently amalgamated, but of whom they ever constituted the aristocracy. This warrior and haughty spirit of those Asiatic conquerors preserved itself above all among the Germans, and it is to be perceived also amid the Latins and the Greeks.

Let it not, however, be imagined that, beneath the influence of the neighborhood which new migrations created for them, such tribes of Finnish stock thrown off to the north-east of Europe, and those

[16] The study of the vocabulary of the Finnish tongues, and even that of the Tartarian, proves to us that those populations were wanting in a quantity of knowledge that we find, from the very beginning, amidst the Indo-European populations, and which the former were afterwards forced to borrow from the latter. For example, the name of *salt*, in all the idioms of that family as well as in Hungarian, expressed by a derivative of the Sanscrit, Greek, or Latin name. Indeed, it is certain that the use of salt remained for a long time unknown to the inhabitants of Northern Europe; and that Christian II, king of Denmark, had gained over the Swedish peasants by bringing to them this precious condiment.

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Iberian peoples repulsed to the south-west, have remained absolutely stationary. Their languages tell us the contrary; because these languages have improved: but such perfectioning has not been able to step beyond certain bounds. The Finnic spoken in Finland, for instance, has drawn nearer to tongues *à flexions* (with flexions); but never has it been able to attain that degree of force, of clearness and energy, which makes the merit of our Indo-European idioms.

As concerns sounds, notwithstanding their homogeneity, the Finnish tongues,—or, to qualify them more exactly, the *Ougro-Tartar* languages—vary considerably. There are some very soft ones, like the *Suomi* or Finlandish; and some very harsh, like the *Magyar;* but a principle of harmony dominates them. This principle is especially perceptible in the Suomi. Indeed, this idiom seeks above all for sweetness and euphony. It avoids, in consequence, monosyllabic radicals, and nearly always attaches to the root a final vowel that bears no accent. Hence M. SCHLEICHER has remarked how this gives to the words of this tongue the measure of a "trochee."[17]

We meet again with this harmonic tendency equally in the *Tartar* tongues, which the "ensemble" of their characteristics and words attaches also as closely to the Ougro-Japonic languages, as the Tartar type attaches itself to the Finnish, or Ougrian, through the intermediacy of the Tungouse type. The separation is not more decided (*tranchée*) between the races of Siberia and those of central Asia, than between the idioms which they speak. The *Mongol*, the *Mandchou*, the *Ouïgour*, the *Turkish*, are not fundamentally distinct from the Finnish tongues; and this explains why some philologers had been struck with the resemblance between Turkish and Hungarian. We are here referring to the primitive Turkish, to that which was spoken in Turkestàn, and of which some dialects yet subsist in certain parts of Russia and of Tartary; because, as to that which is now European Turkish, it is altered almost as much as the Turkish blood itself. It is imbued with Arabic and Persian words; it has become singularly softened down: in the same manner that the Asiatic Turks, by dint of crossing themselves through marriage with Georgian girls, with Greek, Arab, Persian (occasionally with an Abyssinian or negress), Sclavonian and other women, have ended by taking a physiognomy altogether different from that of their ancient progenitors,—which has been gaining in nobleness and regularity what it loses in singularity. European blood has so well infiltrated itself into that of the Hunnic hordes which conquered the country situate between the Danube and the Theis, that it is now-a-days impossible

[17] The Greeks and the Latins called *trochee* a foot composed of a long and a short syllable.

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to descry any more of the Mongol, anything of that hideousness so celebrated among the Huns, in the expressive traits of the present Magyar.

One may, then, designate this vast family of languages under the denomination of *Ougro-Tartar*. All of them, at divers degrees, are subject in their words to the law of euphonic transformations of vowels in the particles suffixed, that is to say, joined on at the ends of words. In order that nothing should come to injure the clearness of the radical's pronunciation, everything is combined so that its vowel remains immutable; and hence, accordingly as this vowel is hard, soft, or intermediary, the vowels of the suffixes are submitted to modifications having for object to prevent the asperity or the heaviness of the latters' sound from smothering the sound of the radical. This law, so remarkable, is precisely the reverse of what happens in languages *à flexions* (with flexions), for the case; because in them it is the suffixes that act upon and influence the vowels of the radical.

All these tongues proceed equally through the path of agglutination. The radical is, indeed, at bottom monosyllabic. Its almost constant junction to a particle-suffix makes it, in reality, a dissyllable, whose monosyllabic origin is nevertheless recalled by the presence of the accent upon the first syllable. Never does the radical suffer any foreign syllables to place themselves at its head (or commencement); and we still behold in Magyar how, notwithstanding that it has largely undergone the influence of the Indo-European tongues by which it is surrounded—as in Finnish, as in Turkish, as in Mongol,—a word can never begin with two consonants; and lastly, the generical employment of the postposition to designate the relations of the substantive. The number of these postpositions varies according to the development and the richness of the tongue. In Suomi, for example, the adjunctive particles are very numerous, not less than fifteen being counted, which makes in reality fifteen cases; without including the nominative, that forms itself without suffix: and still, notwithstanding, the Finnish does not recognize the distinction of one of the most natural cases, viz: the accusative, which it renders through indirect cases.

The whole of these languages, maugre their apparatus of forms, are nevertheless poor. It is clear that this heap of postpositions results, in reality, from a powerlessness of the mind to reduce to simple and regular expressions the relations of words betwixt each other. We must not, therefore, wonder at finding, in the Ougro-Tartar tongues, almost always the same terminations, as well in the plural as in the singular.

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One may partition, according to their degree of development, these tongues into four groups,—the *Ougrian* group, that comprises the Ostiak, the Samoyede, the Vogoul, and divers other dialects of Siberia: the *Tartar* group properly so called, which comprehends the Mongol that occupies in it the lower rung, the Ouïgour, the Mandchou, and the Turkish, whose position is on the highest: the *Japonic* group, to which belongs the Corean; and the *Finno-Ougrian*, that embraces the Suomi or Finlandic, the Esthonian, the Lapponic, and the Magyar; all which latter tongues are superior to those of the preceding groups, as concerns the grammatical system and ideology.

The *Finno-Ougrian* family prolongs itself into North America, where we encounter its most widely-spread branches in the most boreal latitudes. And in like manner it is to be noted, that the Eskimaux race, and the septs thinly scattered over those frozen countries, approximate in their type to that of the Ougrian.

The idioms spoken in the entire sub-Arctic region present the same uniformity, therefore, as the *fauna* of this region.[18] Indeed, we know that animal species are found to be very nearly the same along the boreal latitudes both of the Old and the New world.

Whilst one body of the great Indo-European migration from Asia was advancing by detachments into our temperate countries, another corps descended through the defiles of the Hindoo-Kosh, and by the basin of the Indus, into the vast plain of the Ganges; and spread itself bit by bit over the whole peninsula, of which this river laves the northern provinces. This is what we are taught not merely by the traditions of the Hindoos, but also by the study of the languages spoken in this peninsula. In fact, while we encounter, at the north of Hindostàn, idioms emanating from the Sanscrit family, we meet, further to the south, with an "ensemble" of tongues, absolutely foreign to it, as well in vocabulary as in grammar.

These languages appertain all to the same family, and they are denominated, after the Hindoos, by the epithet of *Dravirian* or *Dravidian*. Hence, the Arian tribes had been preceded in India by populations of a wholly distinct family; in the same manner that the sisters of the former had encountered in Europe another race, different likewise from themselves. And, what is remarkable, the two categories of languages spoken by the autochthones of Europe and the indigenous peoples of Hindostàn belong, in classification, to linguistic families having many traits in common.

The Dravidian tongues subdivide themselves into two groups; one

[18] Agassiz, "Sketch of the Natural Provinces of the Animal World, and their relation to the different Types of Man"—in Nott and Gliddon's *Types of Mankind*, 7th edition, 1856, pp. lx.—xiii.

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the northern, and the other southern. The first embraces the languages spoken by the dispersed native tribes, whom the descendants of the invading Aryas have repelled into the Vindhya mountains, viz: the *Male* or Radjmahali, the *Uraon*, the *Cole*, and the *Khond* or Gonde. The second comprises the *Tamoul* or Tamil, the *Telougou* or Telenga (called also *Kalinga*), the *Talava*, the *Malayalam*, and the *Carnatic* or Carnataka. As the populations at the south of the peninsula have preserved, during a longer time, their national independence, and even have attained a civilization of their own, one can understand that the idioms of the southern group must be far richer and more developed than those of the northern group. Nevertheless, despite this inequality of development, one discovers, in a striking manner, the same characteristics in the whole of these tongues. Another branch of the same family, which extends to the north-east of the basin of the Ganges, indicates to us through its presence, that a fraction of the indigenous population was thrown towards the north-east; so that, it must now be admitted, the great Dravidian nation, cut through its centre (by the intrusive Aryas), was, like the primitive population of Europe, driven off to the two opposite extremities of its vast territory. The *Bodo* and the *Dhimal* are the two principal representatives of this cluster separated from the stem, whose most advanced branches continue onward until they lose themselves in Assam.

All the characters appertaining to the Ougro-Japonic tongues are found again in these Dravidian languages, of which the Gonde may be considered to have preserved to us their more ancient forms. All manifest in a high degree the tendency to agglutination. The law of harmony, that we have perceived just now in the Finnish languages, re-appears here with the same character. The foundations of the grammatical system, which are identical in all these tongues, doubtless constitute them as separate families from Tartarian; but this (Dravidian) family is very close, certainly, to those idioms spoken by the Tartars. The same contrasts exist, as regards the vocalization, between the Ougro-Japonic and the Dravidian tongues. The Magyar may be compared to that Dravidian idiom richest in consonants, —for example, to the *Toda* or Todara, which is spoken by an ancient aboriginal tribe established in the Nilgherri-hills; and the Finnish, with the Japonic, correspond in their softness to the Telougou talked at the south-east of Hindostàn.

These Dravidian populations were spread even to the islands of Ceylon, the Maldives and the Laquedives; inasmuch as the idioms there still spoken attach themselves also to the Dravidian group.

Comparative philology demonstrates to us, therefore, that a popu-

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lation in race very approximate to the Tartar, and which was, consequently, itself allied to the Finnish race, did precede the Aryas in old Hindostàn.

One must not judge of the intellectual and social condition of these aborigines from the literary movement that has been wrought in the body of the *Tamoul*, which was the counterblast of that grand intellectual movement represented to us by the Sanscrit, and was certainly due to the Aryan influence. In order to judge what these primitive populations of Hindostàn had been, one must go and study their scattered remains. This has been done, quite in recent times, by the English, to whom we owe some most interesting details about these antique tribes. These *débris* of primeval Indian nationality are now distributed in three distinct parts of the peninsula. The first are met with in the heart of the Mahanuddy, as far as Cape Comorin; being the Bheels, the Tudas, the Meras, the Coles, the Gondes or Khonds, the Soorahs, the Paharias, &c. The second inhabit the northern section towards the Himalaya; such are the Radjis or Doms, and the Brahouis. The third occupy the angle that separates the two peninsulas of India, and which is designated by the name of Assam, as well as that mountainous band constituting the frontier between Bengal and Thibet.

The whole of these tribes live even now as they lived very many centuries ago. They are agricultural populations, who, from time to time, clear with fire a portion of the jungle or the forest. The word which, amongst these people, renders the idea of culture, signifies nothing else than the cutting down of the forest. The Aryas, on the contrary, were a pastoral people; and in India, as in many other countries, the shepherds triumphed over the farmers. Everything, furthermore, announces among these Dravidian people much gentleness of character, which is again a distinctive trait of the Mongols and of the Finnish populations. Their worship must have been that naturalistic fetishism which remains the religion of the Bodos, the Dhimals, and the Gondes. They adored objects of nature. They had deities that presided over the different classes of beings and the principal acts of life; and they knew naught of sacerdotal castes or of any other regular organization of worship. Some usages, preserved even at this day among several of these indigenous tribes, show us that woman, at least the wife, enjoyed among them a very great degree of independence.

The facts accord, then, with linguistics to show us how, within that portion of Asia comprehended between the Euphrates and Tigris, and the Indus, there had existed a more intelligent and stronger race, that, at a very early day, divided itself into two

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branches, of which one marched into Europe, and the other into Hindostân; both encountering, in each new country, some populations of analogous race, and possibly allied, whom they subjugated, and of whom they became the superior caste—the aristocracy. The two inferior castes of India, the *Vaisyas* and the *Soudras*, are but the descendants of such vanquished nations,—the anterior type of India's autochthones being even yet represented in a purer state by some of the Dravidian "hill-tribes" above described.

But, alongside of this grand and powerful race of Aryas and Iranians, there appears, from the very remotest antiquity, another race, whose territorial conquests were to be less extended and less durable, but of whom the destinies have been glorious also. It is the *Semitic* (Shemitic, Shemitish) or *Syro-Arabian* race. From the banks of the Euphrates to the shores of the Mediterranean, and to the extremity of the Arabic peninsula, this race was expanding itself. Its great homogeneity springs from the close bonds which combine together the different dialects of its tongue. These dialects are the *Aramæan*, the *Hebrew*, the *Arabic*, the *Chaldæan* and the *Ethiopic*.

By their constitution, all these idioms distinguish themselves sharply from the Indo-European languages. They possess neither the same grammatical system, nor the same verbal roots. In Semitic languages, the roots are nearly always dissyllabic; or, to speak with philologists, triliteral, that is to say, formed of *three* letters: and these letters are consonants; because, one of the most distinctive characteristics of the Semitic tongues is, that the vowel does not constitute the fundamental sound in a word. Here vowels are vague, or, to describe them otherwise, they have not any settled fixed-sound, distinct from the consonant. They become inserted, or rather, they insinuate themselves between strong and rough consonants. Nothing of that law of harmony of the Ougro-Tartar or Dravidian tongues, nothing of that sonorousness of Sanscrit, of Greek, and neo-Latin languages,—exists in the Semitic. Man speaks in them by short words, more or less jerked forth. The process of agglutination survives in them still; not, however, completely, as in the Basque. There are many flexions in them, but these flexions do not constitute the interior of words.

Since the publication of M. Ernest Renan's great labors upon the history of Semitic languages, we are made perfectly acquainted with the phases through which these languages have passed.

They have had, likewise, their own mould, which they have been unable to break, even while modifying themselves. The *Rabbinical*, the "Nahwee" or *literal Arabic*, in aspiring to become languages more analytical than the *Chaldee* or the *Hebrew*, have remained, not-

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withstanding, imprisoned within the narrow bars of an imperfect grammar. This is the reason, as M. Ernest Renan has remarked, that,—whilst the Indo-European tongues continue still their life in our day, as in past times, upon all points of the globe—Semitic languages, on the contrary, have run through the entire circle of their existence. But, in the more circumscribed course of their life, they have presented the same diversities of development established for all the preceding families; and, at the same time that the Aramæan which comprises two dialects,—the pagan Aramæan or *Sabian*, and the Christian Aramæan or *Syriac*—is poor, without harmony, without multiplied forms, ponderous in its constructions, and devoid of aptitude for poetry, the *Arabic*, on the contrary, distinguishes itself by an incredible richness.

The Semitic race, of which the birth-place must be sought in that peninsular space shut in, at the north by the mountains of Armenia, and at the east by those which bound the basin of the Tigris, has not gone outside of its primitive father-land. It has only travelled along the borders of the Mediterranean, as is proved to us by the incontestable Semiticism of the *Phœnician* tongue, whose inscriptions show it to have been very close to the Hebrew. Africa has been almost the only field for its conquests. Phœnician colonies bore a Semitic idiom into the country of the Numidians and the Mauri; later again, the Saracenic invasion carried Arabic—another tongue of the same family—into the place of the *Punic*, which last the Latin had almost dispossessed. In Abyssinia, the *Gheez* or Ethiopic does not appear to be of very ancient introduction, and everything leads to the belief that it was carried across the Red Sea by the Joktanide Arabs, or *Himyarites*, whose language, now forgotten, has left some monuments of its existence, down to the time of the first Khalifates, in divers inscriptions.

The Semites found in Africa upon their arrival a strong population, that for a long period opposed itself to their conquests. This population was that of the Egyptians; whose language now issues gradually from the deciphering of the hieroglyphics, and which left, as its last heir, the *Coptic*, still living in manuscripts that we collect with avidity.

This *Egyptian* was not, however, an isolated tongue. The *Berber*—otherwise miscalled the "Kabyle," which name in Arabic only means "tribe,"—studied of late, has caused us to find many congener words and "tournures." And this Berber (whence *Barbary*) itself, yet spoken by the populations Amazirg, Shillouh, and Tuareg, was expelled or dominated by the Arabic. Its domain of yore extended even to the Canary-isles. Some idioms formerly spoken in the north

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of Africa attached themselves to it through bonds of relationship more or less close. The presence, throughout the north of Africa, of inscriptions in characters called *Tifnag*, and which seem to have been conceived in Berber language, makes known to us that this tongue must have reigned over all the territories of the Barbaresque States; and was most probably that of the Numidians, Gætulians, and Garamantes.

Egyptian civilization was very profuse in aspirates. Its grammatical forms denote a more advanced period than that of the Semitic tongues: its verb counts a great number of tenses and moods, formed through the additiou of prefixes or of suffixes. But its pronoun and its article have still an entirely Semitic physiognomy, notwithstanding that the stock of its vocabulary is absolutely foreign to that of those languages.

We have already caused it to be remarked that, in the *Galla* (of Abyssinia) one re-encounters the Semitic pronoun. The influence exerted at the beginning by the Semites over the race to which the Egyptians were proximate—and whom we will call, with the Bible, *Hamitic* — was, therefore, in all likelihood, very profound. When the Semites entered into relations with the Hamites, the language of the latter must have been yet in that primitive stage in which essential grammatical forms might still be borrowed from foreign tongues. An intermixture sufficiently intimate must have occurred between the two races; above all in the countries bordering upon the two territories. Such is what occurred certainly for the Phœnicians, whose tongue was Semitic, whilst the stock of population belonged, nevertheless, to the Hamitic race. For Genesis gives Canaan as the son of Ham; and Phœnicia, as every one knows, is "the land of Canaan." The whole oriental region of Africa as far as the Mozambique coast affords numerous traces of Semitic influence. Alongside of the Gheez, that represents to us, as E. RENAN judiciously writes it, the classical form of the idiom of the Semites in Abyssinia, several dialects equally Semitic arrange themselves; but all more or less altered, either by the admixture of foreign words, or through the absence of literary culture. Amid these must be placed the *Amharic*, the modern language of Abyssinia.

Semitic tongues underwent, in Africa, the influence of the languages of that part of the world; and, in particular, of those of the Hamitic family, spoken in the countries limitrophic to that inhabited by the Semites.

African languages cannot all be referred to the same family: but they possess among themselves sundry points of resemblance. They constitute, as it were, a vast group, whence detaches itself a family

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that may be called the *African* family "par excellence," and which extends from the Occidental to the Oriental coasts, re-descending even into the Austral portion.

All the languages that form part of this group, and in general the tongues of the whole of this portion of the globe, possess one system of vocalization, otherwise termed, a powerful phonology; and sometimes even a disposition almost rhythmical, which gained for them, on the part of some philologists, the name of *alliteral* tongues. Thus, although the consonants in them be often aspirated, and affect odd pronunciations, they are never accumulated together. Double letters are rare, and in certain tongues unknown. For example, in *Caffr*, the vowels have a pronunciation clear and precise. In the major number of the languages of Southern Africa, and in some few of those of Central Africa, the words always terminate with vowels, and present regular alternations of vowels and consonants. This is above all true of the Caffrarian languages.[19] M. D'AVEZAC writes about the *Yébou*, or Ebo, tongue spoken in Guinea: in regard to euphony, this language may be considered as one of the softest in the world; vowels abound in it; and it is in this respect remarkable that (except, perhaps, some rare and doubtful exceptions) not merely all the words, but even all the syllables end in vowels: the consonants offer no roughness in their pronunciation; and many are articulated with a sort of quaintness (*mignardise*), which renders it difficult to seize them, and still more difficult to express graphically by the letters of our alphabet.[20] Among some other African tongues, on the contrary, the termination is ordinarily nasal. Amid the majority of the languages of northern and midland Africa, the words finish with a vowel. Such is what one observes in the *Woloe*, the *Bulom*, the *Temmani*, the *Tousnali*, and the *Fasoql*.

As concerns the system proper of sounds, and the vocabulary, they vary greatly in African languages: and the harmony, sonorousness, and fluidity of speech, frequently meet, in certain sounds, with notable exceptions. It is the character of these various sounds that may serve as a basis for the classification of the tongues of Africa. All present compound vowels and consonants; amongst which, *m p*, *m b*, are of the frequentest employment. The duplex consonants *n k*, *n d*, appear likewise. Finally, in some African idioms, one encounters the consonants *d g*, *g b*, *k b*, *b p*, *b m*, *k e*, *k h*, *r h*, *p m b*, *b l m*.[21]

[19] See on this subject *The Kafir Language; comprising a sketch of its history*, by the REV. JOHN W. APPLEYARD (King William's Town, 1850), p. 65 *seqq*.

[20] *Mémoires de la Société Ethnologique de Paris*, ii. part 2, p. 50.

[21] In these illustrative notations no attempt is made, of course, to follow any of the diversified "standard alphabets" recently devised for the use of Missionaries. On this question of the expediency of such alphabets, and their success so far, I coincide entirely with the criticism of a very scientific friend, PROF. S. S. HALDEMAN (*Report on the Present*

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Aspirates and the sibilants are not rare, any more than the use, simple or compound, of the *w*. Among some languages of this family, the palatal and dental letters are confounded, or at least are not clearly distinguishable. Several tongues are completely devoid of certain letters: for instance, the *Odji*, and divers others, are wanting in the letter *l*; and replace it, whenever they meet with it in what foreign words they may appropriate, by *r*, or *d*, or *ñ*.

The accordances, of different parts of the discourse, are often regulated by a euphonic system which is felt very strongly in sundry idioms, notably in the *Yazouba*. The radicals are more frequently monosyllabic. It is the addition of this radical with a modifying particle (which is most commonly a prefix) that gives birth to the other words. The relations of cause, of power, of reciprocity, of reflectivity, of agent, &c., as well as those of time, number, and sex, are always expressed through a similar system. The radicals, thus united to formative particles, become, in their turn, veritable roots, and constitute the source (*souche*) of new words. One can comprehend, nevertheless, how very imperfect is such a system, for defining clearly the relations, at once so multiplied and so distinct, existing between words. There exist above all some for which African languages are of extreme poverty; for example, the ideas of time and motion. And this character approximates them, in a manner rather striking, to the Semitic tongues. As in these latter idioms, African languages do not distinguish the present from the future, or the future from the past: otherwise, they express both these tenses by one and the same particle. The penury and the vagueness of particles indicative of the prepositions,—or to speak with grammarians, of the prefixes to prepositions—are again far more pronounced in the majority of African idioms than amidst the Semitic. They enunciate, by the same particle, ideas as different as those of movement towards a

State of our knowledge of Linguistic Ethnology, made to the American Association for the Advancement of Science, Aug. 1856). My experiences of the hopelessness of arriving at any exact countervalues in European characters for *Arabic* intonations alone, so as to enable a foreigner, who has not *heard* Arabs speak, even to pronounce correctly, render me very sceptical as to the ultimate possibility of transcribing, through any one series of Alphabetic signs, the infinitude of distinct vocalizations uttered by the diverse groups of human types; which articulations, as Prof. Agassiz has so well remarked, take their original departure from the different *conformations of the throat* inherent in the race-character of each distinct group of mankind.

Should any one, however, desire to put this universal "Missionary Alphabet" through an *experimentum crucis*, he need not travel far to test its applicability to remote, abnormal, and barbarous tongues, by trying its efficacy upon three cognate languages close at hand. Let a Frenchman, wholly unacquainted with English, transcribe into the "Missionary Alphabet," a short discourse as he *hears* it from the mouth of a Londoner. Then, pass his manuscript on to a German (of course knowing neither French nor English), and let him read it *aloud* to an Englishman. "Le diable même ne s'y reconnaîtrait pas!" — G. R. G.]

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point, or the departing from a point; of position in a place, toward a place, or near a place. The same poverty is observable in the conjunctions: copulative particles being employed frequently to render the idea of possession and of relationship; those which express the idea of connexion being often replaced by pronouns or by definite particles.

Per contra, African languages, as well as the Semitic, are extremely rich in respect to the changes (*voies*) of the verb, that is to say, in forms indicating the manner in which a verb may be employed. These changes—which are so numerous, notably in Arabic—are not the less so in the majority of African languages; beyond all, in the principal group that extends from the Mozambique coast to Caffraria on one side, and to Congo on the other. Although these changes are composed, in the major portion of such tongues, by the addition of prefixes, they form themselves in others through the aid of suffixes.

The number of these changes varies singularly according to the tongues. Thus, in the *Sechuana* language, and in the *Temneh*, there exist six changes; in the *Sooahéeli* seven, in the *Caffr* eight, and in the *Mpongwee* eleven.

To give an idea of the opulence of these changes in a single verb, we borrow an illustration from the language of Congo. Sala, *to labor;* salila, *to facilitate labor;* salisia, *to labor with somebody;* salanga, *to be in the habit of laboring;* salisionia, *to labor the one for another;* salanyana, *to be skilful at laboring.*

All verbal roots are susceptible of similar modifications through the help of certain particles that may be added to them. In this method, by the sole use of the verb, an expression is attained indicating whether the action be rare, frequent, difficult, easy, excessive, &c. And this richness of changes does not prevent the language from being, as regards its verbs, and viewed in respect to their number, of great poorness. For instance,—the idiom of Congo, from which we have just borrowed the proof of such a great richness of changes, does not possess any word to express the idea of "living," but is obliged to say in place, *to conduct one's soul*, or *being in one's heart.*

Another very characteristic trait of the majority of African tongues is, that they do not recognize the distinction of genders, after the manner of the Semitic idioms or the Indo-European. They distinguish, on the contrary, as two genders, the animate and the inanimate; and in the class of animate beings, the gender *man* or *intelligent*, and the gender *brute* or *animal.* Others of these languages, in lieu of distinguishing numbers after the fashion of Indo-European and Semitic idioms, recognize only a collective form which takes no heed of genders, and a plural form that applies itself to beings of the

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same genders. This is a particularity that we shall again encounter in the *clicking* languages, or the Hottentot.

We do not possess sufficient elements as yet to give a complete classification of the languages of Africa. It is only since the recent publication of the *Polyglotta Africana* of Mr. S. W. Koelle that we have acquired an idea of the reciprocal affinities which link together the tongues of Western Africa.

The classification proposed, however, by Koelle is freely introduced into the following schedule.

I.—ATLANTIC languages, or of the north-west of Africa.

These tongues have, with those of southern Africa, for a common characteristic, the mutation of prefixes. They comprise the following groups, viz:

1st.—The **Fouloup** group, which embraces the Fouloup or Floupe, properly so called, spoken in the country of the same name,—the Filham, or Filhôl, spoken in the canton which surrounds the city of *Buntoun;* this town is situate upon the river Koya, at about three weeks' march from the Gambia.

2d.—The **Bola** group, which comprises the Bola talked in the land of *Gole* and that of *Bourama*,—the Sarar, idiom of the country of this name stretching along the sea to the west of *Balanta* and to the north of the district where the Bola is spoken,—the Pepil spoken in the isle of *Bischlao* or Bisao.

3d.—The **Biafada** group, or **Dchola**, spoken at the west of *N'kabou* and north of *Nalou*,—the Padschade, which is an idiom met with at the west of *Koniadschi* and east of *Kabou*.

4th.—The **Bulom** group, comprehending the Baga, a tongue spoken by one of the popoulations of this name which inhabits the borders of the *Kalum-Baga*, eastward to the islands of *Los*,[21]—the Timne talked at the east of Sierra-Leone,—the Bulom spoken in the country of this name that bounds on *Timné*,—the Mampua, or Manpa Bulom, called also Scherbo, idiom of the region extending westward of the Ocean, between Sierra-Leone and the land of *Boum*,—the Kisi, spoken west and north of *Gbandi*, and east of *Mendé*.

II.—MANDINGO family—spread over the north-west of Upper Soodàn.

[21] It is unknown to what family of tongues belong the idioms of the other populations termed *Baga*, who dwell upon the banks of the Rio-Nunez and Rio-Pongas.

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This very extended family comprehends the **Mandingo,** properly so termed, or better the MENDÉ,—the KABUNGA, Mandingo dialect spoken in the land of *Kabou*,—and several other dialects of the same language, such as the TORONKA, dialect of *Toro;* the DCHALUNKA, dialect of *Fouta-djalon;* the KANKANKA, dialect of Kankan; the BAMBARA, the KONO, talked westwards and northwards of the *Kisi;* the VEI, in the country of this name situate to the east of the Atlantic and north of *Gbandi*, which embraces several dialects, viz: the TENÉ, spoken in the land so called, that has *Souwekourou* for its capital; the GBANDI, spoken at the north of *Gula* and at the west of *Nieriwa;* the LANDORO, talked west of *Limba;* the MENDE, spread over the west of *Kono* and the *Kisi*, and east of *Karo;* the GBESE, idiom of the borders of the river *Nyua;* the TOMA, called likewise BOUSE, spoken in the land of the same name situated to the south of that of the *Gbese;* and the GIO, talked westward from *Fa.*

III.—UPPER-GUINEAN—that is, the languages of the Pepper, Ivory, Gold and Slave, coasts, decompose themselves into three groups, viz:

1st.—The **Kroo** tongues, comprising the DEWOI, spoken on the banks of the river *Dé*, or St. Paul's; the BASSA, talked in a portion of the Liberian territory; the KRA, or KROO, spread south of the Bassa along the coast; the KREBO, spoken in a neighboring canton; the GBE, or GBEI, whose domain lies east of the Great Bassa.

2d.—The languages of **Dahomey**, of which the principal are the DAHOMÉ, or POPO; the MAHÉ, spoken eastward of the Dahomé; and the HWIDA, talked in the country of that name, located to the south of the *Geléfe* islands.

3d.—The languages **Akou-Igala**, embracing the numerous dialects of the speech of the *Akou*, among which the YOZOUBA, spoken between *Egba* and the Niger,—and the IGALA, language of the country of that name—are the most important.[23] We shall revert further on to the YOZOUBA.

IV.—The languages of the *north-west* of **UPPER SOODAN** divide themselves into four groups:

1st.—The group **Guzen,** represented chiefly by the idiom of a very barbarian people, the *Guzescha*, who inhabit to the west of *Ton;*

[23] The *Yébou*, of which M. D'AVEZAC has published the grammar (*Mémoires de la Société Ethnologique de Paris*, II, part 2, pp. 106 *seqq.*), appertains to this group.

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2d. — The group **Legba,** which embraces the LEGBA and the KIAMBA;

3d. — The group **Koama,** to which belongs the BAGBALAN;

4th. — And lastly, the group **Kasm,** spoken westward of the land of the *Guzescha.*

V. — The tongues of the **DELTA** of the *Niger* are divided into three groups: — the first represented by the **Ibo** dialects, — the second by the **Egbélé** and several other idioms, — the third by the dialect of **Okouloma,** the name of a maritime district near the country of the *Ibo* and that of *Outcho.*

VI. — The **NUPE** family, or languages of the *basin* of the *Tchadda,* — a family embracing nine idioms, of which the principal are the NUPÉ, or TAYBA, spoken in a country neighboring *Raba* on the Niger; and the GOALI, or GBALI, talked to the east of the Nupé.

VII. — The family of **CENTRAL-AFRICAN** languages is composed of two groups:

1st. — The tongues of **Bornou,** which comprise also those of the KANAM, and the BUDOUMA, spoken in the lake-isle of that name. The main language of *Bornou* is the KANOURI, which attaches itself by close relationship to the three tongues of *Guinea,* — the ASHANTEE, the FANTEE, and the ODJI.

2d. — This group comprehends the PIKA, or FIKA, and the BODÉ dialects spoken west of Bornou.

VIII. — The **WOLOF,** or **JIOLOF,** spoken by the populations of *Senegambia,* distinguishes itself, with sufficient sharpness, from all the preceding tongues; and offers a grammatical system that has more than one trait in common with the Semitic languages.

IX. — In the same region, another family of tongues has the **FOOLAH,** or **PEULE,** for its type; one dialect of which is spoken by the *Fellatahs,* and very probably also by the *Hausa,* or *Haousans.* The vocabulary of these divers idioms, and notably that of the **Peule,** has presented a remarkable analogy with the Malayo-Polynesian[24] languages, of which we shall treat anon. It seems, therefore, that the **Peule** family might not, perhaps, be attachable to African tongues.

The **Wolof,** although constituting a separate family, approaches in certain points the YOZOUBA, spoken to the

[24] GUSTAVE D'EICHTHAL, *Histoire et Origine des Foulahs ou Fellans,* Paris, 1841 (Tirage à part de l'Extrait des *Mémoires de la Société Ethnologique*).

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north of the Bight of Benin, — between the 2d and 3d degree of W. long., and the 6th and 10th degree of N. latitude.

The WOLOF demarcates itself by its final inflexions. To it other idioms, seemingly, have to be attached: such as the BIDSCHAGO, or BIDSHORO, which is spoken in the island of *Wun*, — the GADSCHAYA, idiom of a tribe called also *Séhé-rulé*, or *Serawouli*, — and lastly the GOURA.

X. — Another group, which is characterized by initial inflexions, is spread over the basin of the *Gambia*, and is represented by the LANDOMA, that is spoken in the land of *Kakondi*, — and the NABOU, used in the canton of *Kakondan*.

The WOLOF verb is susceptible of seventeen modifications, that consist in adding to each radical one or two syllables, and which extend or restrict its acceptation. It is something like the forms of the Arabic verb. The article follows the substantive, and embodies itself with it, as in agglutinate languages. The plural article exhibits equally an especial characteristic that makes it participate of a demonstrative pronoun. In general, the WOLOF offers, in its phonology, that same harmonical disposition which belongs to all the African languages.

XI. — Although the WOLOF approximates to the **YOZOUBA** more than to any other African tongue, these two idioms still remain separated by a difference sufficiently defined. The YOZOUBA possesses, in its grammatical system, a great degree of perfection and regularity. One observes in it an "ensemble" of prefixes complete and regular, that, upon joining themselves to the verb, give birth to a multitude of other words formed through a most simple process. The radical thus passes on the abstract idea of action into all derivative concrete ideas; and thus reciprocally by the addition of a simple prefix, a noun becomes a possessive verb.

Another peculiarity of the YOZOUBA is, that the same adverb varies in form and even in nature according to the species of words it qualifies.

The YOZOUBA system, notwithstanding its individuality, connects itself tolerably near with that of the tongues of *Congo*. The M'PONGWE, for example, spoken on the Gaboon coast, forms its verbs by adding a monosyllabic prefix to the substantive; by opposition to certain *Senegambian* languages, such as the MANDINGO, in which they employ suffixes to modify the sense of the verb or the noun.

XII. — The **CONGO**-languages appertain to that great formation of

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African tongues of which we treated above, and that divide themselves into many groups, united incontestably by close bonds.

1st. — The first group is that of the tongues of **Congo**; the whole of them characterized by the initial flexion. They embrace the languages of the tribes named *Atam*, of which one of the chiefest is the UDOM, spoken in a country of this name, which has *Ebil* for its capital,—the languages of *Mokos*-tribes, that subdivide themselves into several groups, embracing a great number of idioms,—the tongues of *Congo* and of *Angola* that comprise three groups; the first, represented above all by the MBAMBA; the second, by the BAHUMA, or MOBUMA; and the third, by the N'GOLA, speech of *Angola*.

2d.—The second group, comprehends the tongues of **South-West Africa**, viz: the KIHIAU, that also forms its verbs by means of prefixes, and attaches itself very nearly to the **Congo**-languages. It appears to identify itself with the MUNTOU-tongue, spoken by the *Veiao*, whom one encounters in the country of *Knyas*, about two months' journey west from the Mozambique coast. To this group, likewise, belongs the MARAWI, the NIAMBAN, and many other languages.

3d.—The third group is represented by the **Souahílee**-tongues; comprising the SOUAHÍLI properly so-called, spoken by the inhabitants of the coasts of Zanzibar; and the languages of neighboring peoples who dwell to the south of the *Galla*-country; such as the WANIKA, the OKAOUAFI, the WAKAMBA. A good deal of the KIHIAU-language is met with in the SOUAHÍLI; which indicates well the affinity of the two groups.

4th. — The fourth, the group-**Caffr**, comprehends the ZOULOU, or CAFFR proper,—the TEMNEH, the SECHUANA, the DAMARA, and the KINIKA. All these languages offer the same organism, and a great richness of changes (*voies*) together with an extreme poverty of verbs.

XIII. — The tongues of the preceding formation approximate in a very singular manner, as regards certain points of their organism, to that family that may be termed **HAMITIC** (from KHIMÉ, *Chemmia*, the ancient native name of Egypt); and which has for its type the **Egyptian**, of which the COPTIC is but a more modern derivative. To it may be attached, on the eastern side, the GALLA; and on the western, the BERBER.

The EGYPTIAN is known to us from a high antiquity, thanks

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to its hieroglyphical system of writing, of which the employment mounts up to at least 3500 years before our era. This writing,—wherein are beheld the figured and metaphysical representations of objects (mostly indigenous to the Nile) gradually passed into the state of signs of articulation—permits us to assist, as it were, at the formation of speech. Through the use of these signs, one seizes the first apparition of verbal forms, as well as of a host of prepositions. The basis of EGYPTIAN seems to be monosyllabic; but the employment of numerous particles very soon created many dissyllables. This language recognizes two articles, two genders, two numbers. The verb through its conjugations,—which is are made by the aid of prefixes and suffixes, and that counts many changes, — participates more of the Indo-European grammatical system than of the Semitic. Egyptian vocalization seems to have been very rich in aspirates.

This linguistic family, to which the Egyptian belongs, would appear to have been very widely extended at the beginning. The BERBER, vulgaricè KABYLE, now almost reduced to the condition of a "patois," has a tolerably rich literature, and comprehends several very distinct dialects, viz: the ALGERIAN BERBER, spoken by the *Kabàil* — mountain *tribes* of the Atlas — imbued with Arabic words; the MOZÀBEE, the SHILLOÙH, the ZENATÍYA of the province of Constantine, and the TOWERGA, or TOUARIK.

XIV. — The **HOTTENTOT** family of tongues — or "LANGUES À KLIKS," CLICKING languages — is characterized by the odd aspiration, so designated, which mingles itself (as a sort of *glucking*) in the pronunciation of the greater number of words. HOTTENTOT languages bear, above all in the conjugation of their verbs, the character of agglutination. Like Semitic tongues, they are deprived of the relative pronoun. They distinguish two plurals for the pronoun of the first person, the one exclusive and the other inclusive; the former excluding the idea of the person to whom a discourse is addressed; and the latter, on the contrary, inclosing it. In their nouns, there exist two genders in the singular, and three in the plural number, — this third one, called *common*, has a collective value. It follows that when an object be designated in the singular, its gender always becomes indicated. These tongues distinguish three numbers, but they are unacquainted with the case; whilst the

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adjective remains completely indeclinable, and takes neither the mark of gender nor of number.

This family of *clicking* languages comprehends the HOTTENTOT, or QUAIQUAL, — and the Bosjesman dialects, NAMAQUA and KORANA.

Notwithstanding its strange phonological system, the family of Hottentot tongues is not altogether so profoundly distinct from African languages, as one might be tempted to suppose at first sight. It is incontrovertible that these sounds, in nature at one and the same time nasal and guttural, which we term *Kliks*, constitute a special characteristic; but the foundation of the grammatical forms in Hottentot idioms is met with among the tongues of Africa. Thus, the verb presents, like them, a great richness of changes: it has a form direct, negative, reciprocal, causative; and all these *voies* are produced by the addition of a particle to the end of the verbal radical. Their double plural, a common and a particular, is a trait which assimilates them to the Polynesian and even to the American languages. The double form of the first person plural, indicating if the personage addressed be comprised in the "we," or is excluded from it—writes WILHELM VON HUMBOLDT—has been again met with in a great number of American tongues, and had been assumed until now to be an especial characteristic of these languages. This character is encountered, however, in the majority of the languages that we are here considering; in that of the Malays, in that of the Philippine isles, and in that of Polynesia. In Polynesian tongues, it extends even to the dual; and such, moreover, is its particular form, in them, that, were we to guide ourselves by logical considerations merely, it would become necessary to view these tongues, as being the cradle and the veritable father-land of this grammatical form. Outside of the South Sea, and of America, I know of it nowhere else than among the Mandchoux. Since Wilhelm von Humboldt penned these words, the same grammatical peculiarity, which exists in the MALGACHE (of Madagascar), has been discovered in an African tongue, — the VEI-language. African languages present, therefore, to speak properly, but a very feeble homogeneity. The same multiplicity of shades, that is particularly observed among the Blacks, reappears in their idioms.

On studying the grammars and the vocabularies of the latter, one seizes the tracing-thread of those numberless

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crossings which have made, of the branches of the Negro-race, populations very unequal in development of faculties, and in intelligence exceedingly diverse. One perceives a Semitic influence in the speech, as one sometimes discovers it in the type of face. The Hottentots, who are more distinct from Negro-populations than any other race of Austral Africa, separate themselves equally through their tongue. The Foulahs and the Wolofs, so superior to the other Negroes by their intellect and their energy, distinguish themselves equally through the respective characteristics of their idiom. And in like manner that, maugre the variety of physical forms, a common color, differently shaded (*nuancée*), reunites into one group all those inhabitants of Africa whose origin is not Asiatic, a common character links together the grammars of their languages;—or, in other words, African idioms have all a family-air, without precisely resembling each other.

There is one important remark to be made here. It is, that some African languages denote a development sufficiently advanced of the faculty of speech, and consequently of the reflective aptitudes of which this is the manifestation. In this fact we have a new proof that tells against the *unity* of the origin of languages. Because, if African languages were the issue of other idioms, fallen in some way among minds more narrow (*bornés*) than had been those of the supposed-elder nations that spoke them, they ought necessarily to have become impoverished, to have altered themselves; and the laws, which have been established above in the history of one and the same tongue, would lead us to expect that these last ought to be at once more analytical and more simple.

Now, their very-pronounced characteristic of agglutination excludes the idea of languages arising from out of the decomposition of others; and the complex nature of their grammar attests a date extremely ancient for their formation. The idioms of Africa carry, then, the stamp both of primitive and complicated languages; and, as a consequence, of tongues which are not derived, at an epoch relatively modern, from other languages possessing the same parallel character. Hence it must be concluded, that these African languages are formations as ancient as other linguistic formations; possessing their own characteristics; and of which the analogies correspond with those that bind up together the great branches of the Negro-race.

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We have seen that a few of the African languages recall to mind, either through their vocabulary, or by peculiarities of their grammar, the POLYNESIAN idioms.

These idioms constitute, as it were, a grand Zone, that extends betwixt Africa and America: and this position explains how migrations of the race that spoke them, and which we shall call *Malayo-Polynesian*, may have come over to blend themselves with the negroes of Africa. From Madagascar as far as Polynesia, we find a family of similar tongues that has become designated by the name of Malayo-Polynesian, after that of the race.

It decomposes itself into two groups, viz: the *Malay* group, comprehending an "ensemble" of idioms spoken from Madagascar to the Philippine-islands; and the *Polynesian* group, properly so-termed.

One meets again, in this family, with the self-same inequality of development amid the different languages that compose it. Whilst the Malay denotes an advanced degree of culture, the idioms of Polynesia offer a simplicity altogether primitive. These have restricted their phonetic system within very narrow limits; and they employ matter-of-fact methods, no less than very poor forms, in order to mark the grammatical categories. It is through the help of particles, oftentimes equivocal, that these languages try to give clearness to a discourse compounded, albeit, of rigid and invariable elements. The structure of Polynesian words is much more simple than that of the Malay words: a syllable cannot be terminated by a consonant followed by a vowel; or it is not even formed save through a single vowel. These languages are, besides, deprived of sibilants; and they tend towards a planing-away of homogeneous consonants, and to cause those that possess a too-pronounced individuality to disappear. It has seemed, therefore, that the Polynesian tongues result from the gradual alteration of Malay languages; which are far more energetic and much more defined. Otherwise this Polynesian family offers a tolerably great homogeneity: everywhere one re-beholds in it this identical elementary phonology. The idioms of the Marquesas-isles, of New-Zealand, of Taïti, of the Society-islands, of the Sandwich and Tonga, are bound together by close ties of relationship. Such is the paucity of their vocal system, that they have recourse frequently to the repetition of the same syllable, in order to form new words. The onomatopee is very frequent in them. The grammatical categories are also but vaguely indicated; and one often sees the same word belonging to different parts of the same sentence. The methods of enunciating one idea are sometimes the same, whether for expressing an action or for designating an object. The gender and number are often not even indicated. The vocal system (which

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recalls, in certain respects, that of the Dravidian tongues) seems, by the way, to have undergone, in the course of time, modifications sufficiently deep.

The *Malgache*, or *Malagasy*, spoken at the island of Madagascar, constitutes, as it were, a link between the Malayo-Polynesian idioms and those of Africa. Mr. J. R. Logan, in an excellent series of labors on this tongue,[25] makes it seen how several traits in common existed between the Malgache and those tongues of the great Souahílee-Congo family, which he terms *Zimbian*. The same system of sounds. One finds again in them that euphony signalized in the idioms of Central Africa, associated with those double letters, *mp*, *md*, *nh*, *nd*, *nj*, *tr*, *dr*, *ndr*, *nr*, *ts*, *nts*, *tz*, that also characterize the languages of Africa. Prefixes serve equally in them to represent the categorical forms of a word. Finally, that which is still more characteristic, the Malgache does not distinguish genders any more than do the African idioms; and, like the vast Souahílee-Congo group, it carries with it the generical distinction, according as beings are animate, rational, or inanimate, irrational. But, side by side with these striking analogies, there exist fundamental differences. The Malgache-vocabulary is African in no manner whatever, although it may have imbibed some words of idioms from the coast of Africa: it might approach rather towards the Hamitic vocabulary; but its pronouns are peculiar to itself. It possesses quite an especial and really characteristic power for combining formative prefixes; and many traits attach it to those tongues of the Soodân which have surprised philologers by their analogies with Polynesian languages.

It is, therefore, evident that the Malgache represents to us a mixture of idioms; or, to speak more exactly, the result of influences exerted upon a Polynesian idiom by African languages, and, with some plausibility likewise, by those of the Hamitic class. This commingling betrays itself equally in the population of Madagascar. Evidently in this island, to judge by the pervading type of its inhabitants, there has been an infusion of black blood into the insular, or reciprocally. In general, the races that find themselves spread over the zone occupied by the families of Malayo-Polynesian languages do not at all present homogeneity; and one must admit that they descend from innumerable crossings. Nevertheless, the fact—if fact it be, after the analyses of Crawfurd, indicated farther on—of a (*fond*) substratum of words in common, and of a grammar reposing upon the same bases, proves that one and the same race has exercised its influence over all these populations.

[25] *The Journal of the Indian Archipelago and Eastern Asia*, Singapore, — Supplementary No. for 1854, pp. 481 seqq.

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Where must one go and seek for the cradle of this race? Comparative philology places us upon a trail towards its discovery. There exists in the trans-Gangetic peninsula an "ensemble" of languages appertaining to the same family as the Chinese; by attaching itself on the one hand to the Thibetan, and on the other to the Siamese. These tongues have been designated by the name "monosyllabic," because the primitive monosyllabism is perceived in them in all its original simplicity. In monosyllabic languages, there yet exist only simple words rendered through one single emission of the voice. These words are, at one and the same time, both substantives and verbs: they express the notion, the idea, independently of the word; and it is the *modus* through which this word becomes placed in relationship with other words that indicates its categorical sense in a sentence. The Chinese tongue—above all under its ancient or archaic form—is the purest type of this monosyllabism. It corresponds in this manner to the older period which had preceded that of agglutination.

Every Chinese word—otherwise said, each syllable—is composed of its initial and of its final sound. The initial sound is *one* of the 136 Chinese consonants; the final sound is a vowel that never tolerates other than a nasal consonant, in which it often terminates, or else a second vowel. What characterizes the Chinese, as well as the other languages of the same family, is the accent that manifests itself by a sort of singing intonation; which varies by four different ways in the Chinese, reduces itself to two in the Barman, and ends by effacing itself in the Thibetan. The presence of this accent destroys all harmony, and opposes itself to the "liaison" of words amongst themselves; because, the minutest change in the tone of a word would give birth to another word. In order that speech should remain intelligible, it is imperative that the *pronunciation* of a given word must be invariable. Hence the absence of what philologists call "phonology" in the Chinese family. Albeit, in the vernacular Siamese, already an inclination manifests itself to lay stress upon, or rather to drawl out, the last word in a compound expression. These compounded expressions abound in Chinese; the words that enter into them give birth, in reality, through their assemblage, to a new word; because the sense of this expression has often no resemblance whatsoever, almost no relationship, to that of the two or three words out of which it is formed.

The drawling upon the second syllable that takes place in the *Siamese* is the point of departure from monosyllabism, which already shows itself still more in the *Cambodjian*. The *Barman* corresponds to the passage of monosyllabic tongues, wherein the sounds are not

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connected, into languages in which the sounds are bound together. Indeed, nearly all the Barman words are monosyllabic; but they have the faculty of modifying themselves in their pronunciation so as to hitch themselves on to the other words, and hence originate a more harmonious vocalization.

All the basin of the Irawaddy, and Aracan (that is separated from the Burmese empire by a chain of mountains running nearly parallel to the sea, the mounts *Ycoma*), are inhabited by tribes speaking idioms of the same family as the Barman. Little by little, other languages of the same family, such as the *Laos*, have been driven back from the north-west of the trans-Gangetic peninsula by conquering populations emanating from this Burmese race, which now-a-days opposes such an energetic resistance to the English. It is precisely to the same race that belong the more savage populations of Assam. Here, speech and their physical type leave no room for doubt in this respect. Of this number are the *Singpho* and the *Manipouri*.

But, that the *Thibetan* is itself nothing but a modification, but an alteration, of the languages of this same monosyllabic family, is what becomes apparent to us through the tongues of several tribes of Assam and of Aracan,—such as that of the *Nagas*, and that of the *Youmas*, which serve for the transit from the Barman into the Thibetan. These more or less barbarian populations, spread out at the north-west of the trans-Gangetic peninsula, have all the character of the race that has been called the *yellow*. Evidently it is there that one must seek for the savage type of the Chinese family.

The Thibetan is certainly that tongue which most detaches itself from the monosyllabic family; and, by many of its traits, it approaches the Dravidian idioms. It demarcates itself from the Barman through its combinations of particular consonants, of which the vocal effect is sweeter and more mollified; but the numerous aspirates and nasals of the Chinese and the Barman are re-beheld in it. Upon comparing the monuments of the ancient Barman tongue, with those of the ancient Thibetan, one perceives that formerly this language had more of asperity,—asperity of which the Thibetan still preserves traces; because, notwithstanding its combinations of softened consonants, this language is at the bottom completely devoid of harmony. Particles placed after the word modify its sense, and the order of these words is always the inverse of what it is in our idioms. Hence the apparition, in these tongues, of the first lineaments of that process of agglutination already so conspicuous in the Barman. One may construct in it some entire sentences composed of disjointed words, linked between each other only by the

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retro-active virtue, or faculty, of a final word; and it is thus that these languages arrive at rendering the ideas of time still more complex. The Barman, in particular, is, in this respect, of very great richness,—a series of proper names can be treated in it as an unity, and may take on at the end the mark "*do*" of the plural, which reacts then upon the whole: and even a succession of substantives is susceptible of taking the indefinite plural "*mya.*"

These languages cause us, therefore, to assist, so to say, at the birth of agglutinative idioms, of which the Basque has afforded us, in Europe, such a curious specimen. Albeit, whatever be the development that several idioms of the trans-Gangetic peninsula may have acquired through the effects of their successive evolution, they are all not the less of extreme simplicity. The Barman is the most elaborated of the whole family; whereas the Chinese, and the speech of the empire of Annam, are but very little. As concerns the vocal system, on the contrary, the Thibetan and the Barman do not raise themselves much above the Chinese; and it is in the south of the trans-Gangetic peninsula that one must inquire for more developed articulations, always exercising themselves, however, upon a small number of monosyllabic sounds. On the opposite hand, the tongues of the south-east of that peninsula approximate more to the Chinese as regards syntax.

One sees, then, that, maugre their unity, the monosyllabic languages form groups so distinct that one cannot consider them as proceeding the ones from the others, but which are respectively connected through divers analogies; and that they must, in consequence, be placed simply parallel with each other, at distances ever unequal from the original monosyllabism. Although the Barman and the Thibetan approach each other very much,—and that they find, in certain idioms, as it were, a frontier in common,—they still remain too far asunder with regard to the grammar, the vocabulary and the pronunciation, for it to be admitted that one may be derived from the other. They seem rather to be, according to the observation of Mr. Logan, two *débris* differently altered of a more ancient tongue that had the same basis as the Chinese.

Thus one must believe that, from a most remote epoch, the *yellow* race occupies all the south-east of Asia; because the employment of these monosyllabic languages is a characteristical trait which never deceives. In those defiles of Assam where so many different tribes —repelled thither by the conquests of the Aryas, of the Chinese and the Burmese—find themselves gathered, the races of Tartar-type all distinguish themselves from the Dravidian tongues through their

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monosyllabic structure, allied sometimes to the Thibetan, at others to the Barman.

In the peninsula of Malacca, or *Malaya*, and amid the isles of Malaysia, one meets with some populations which, as regards the type, recall to mind the most barbarous tribes of Assam, — the *Garrows*, for example. There have been found again at Sumatra some tribes whose customs and whose type very much recall those of the savage populations at the north-east of Hindostàn. The *Nagas*, or *Kakhyens*, of whose tongue we have already spoken, possess a very remarkable similitude of traits and usages with the Polynesians and divers indigenous septs of Sumatra. They tattoo themselves like the islanders of the South Sea. Every time they have slain a foe, they make (as has been observed amongs the *Pagai* of Sumatra) a new mark on their skins; and, as takes places among the *Aboungs*— another people of the same island — and also among certain savages of Borneo, a young man must not wed so long as he has not cut off a certain number of the heads of enemies. Among the *Michmis*— another tribe of Assam — one finds again the usage, so universal in Polynesia, and equally diffused amid the Sumatran *Pagais*, of exposing the dead upon scaffolds until the flesh becomes corrupted and disengages itself from the bones. All these tribes of Assam, which remind us as well of the indigenous septs of the Sunda-islands as of the primitive population of the peninsula of Malacca, speak monosyllabic tongues appertaining to the Thibeto-Barman, or Siamo-Barman, family. This double circumstance induced the belief that it is the trans-Gangetic peninsula whence issued the Malayo-Polynesian populations. The languages they speak cluster around the Siamese and the Barman; but, in the ratio that they are removed from their cradle, their sounds become softened down, and they become impoverished, whilst evermore tending, however, to get rid of the monosyllabism that gave them birth.

These transformations, undergone by the Malayo-Polynesian languages, have been, nevertheless, sufficiently profound to efface those traits in common due to their relationship. They arise, according to probability, from the numerous interminglings that have been operated in Oceanica.

Whilst some petty peoples of the Thibeto-Chinese source were descending, through the trans-Gangetic peninsula, into Malaysia, and advanced incessantly towards the East, those Dravidian tribes that occupied India, and which themselves issued from a stock, if not identical, at least very neighborly with the preceding, were coming to cross themselves with these Malaysian populations. But such cross-breeding was not the only one. There was another that

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altered the race still more. This commingling took effect with a third population that appears to have been the veritable primitive race of the south of Hindostàn—a *black* race which has been thrown to the east, but whose remains are still found about the middle of the Indian Sea, at the Andaman islets, and that constitutes the foundation of the pristine population of Borneo and the Philippines. It seems to be the same population that occupied exclusively, prior to the advent of Europeans in those waters, New Guinea, Australia, Van Diemen's Land (Tasmania), and divers archipelagoes placed to the eastward of New South Wales.

The tongues of these black Oceanic tribes were, without doubt, very barbarous, and they have been, in several cases, promptly supplanted by the Malayan idioms. They have, notwithstanding, still left traces of their existence at the Sandwich isles, which seem to have been occupied at the beginning, and before the arrival of the Polynesians proper, by the black race. The ground-work of their vocabulary has remained Australian, although the grammar is wholly Polynesian. It is the same at the Viti islands. Elsewhere, however, as at the Philippines, those blacks who are known under the name of *Aigtas*, (*Ajetas*), or *Igolotes*, have adopted the idiom of the Malayan family, which has penetrated into their island with the conquerors.

Unhappily, we possess but very little information concerning the *Australian* languages. All that may be affirmed is, that they were quite distinct from the two groups of the Malayo-Polynesian family: the Malay group and the Polynesian group being themselves very sharply separated.

Mr. Logan has caught certain analogies between the Dravidian idioms and the Australian tongues: which is easily understood; because the populations that expelled from Hindostàn those puny tribes which, at the beginning, had lived dispersed therein, must have exerted by their language some influence over the idiom of these septs, which was evidently very uncouth. A profound study of the names of number, in all the idioms of the Dravidian family, has revealed to him the existence of a primary numerical system purely binary,—which is met with again in the Australian languages; and it corresponds to that little-advanced stage in which one would suppose the black race that had peopled India must have been. And this binary system, which the later progress of intelligence in the Dravidian race has caused to be replaced by more developed systems —the quinary system, and the decimal—has left some traces both in tongues of the southern trans-Gangetic peninsula, and amidst certain

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has made between the tongues of those *Foulahs*, or Fellatahs, that inhabit Senegambia, and some idioms of the Malayo-Polynesian family. These analogies are too striking for us to refuse some recognition of an identity of *origines*; which, furthermore, resiles from many other comparisons. The light complexion of the Foulahs, and the superiority of their intellect, had at an early hour attracted the notice of voyagers. We would admit, therefore, that the Malayo-Polynesian race,—whilst it advanced towards the south-east of Asia, and exterminated or vanquished the black races—had penetrated on the opposite hand into Africa; crossed itself with the negro populations; and thus gave birth to the Foulah-tribes and their congener peoples. At Madagascar, we re-encounter this same Malayo-Polynesian race under the name of *Ovas*, or *Hovas*. This island appears like the point of re-partition of the race that might be named "par excellence" Oceanic, because it is by sea that it has invariably advanced.

[Not to interrupt the order of the foregoing sketch of these Oceanic languages, we have hitherto refrained from presenting another contemporaneous view, that would, in many respects, modify the one which, on the European continent, represents an opinion now current among philologists concerning those families of tongues to which the name "Malayo-Polynesian" has been applied. If the high authority of Mr. John Crawfurd[28] were to be passed over in Malayan subjects, our argument would lack completeness; at the same time that the results of the learned author of the "History of the Indian Archipelago," were they rigorously established, would merely operate upon those we have set forth, so far as breaking up into several distinct groups, — such as, *Malgache*, *Malay*, *Papuan*, *Harfoorian*, *Polynesian*, *Australian*, *Tasmanian*, &c., — the families of languages, in this treatise, denominated by ourselves Malayo-Polynesian. And it must be conceded concerning those tongues spoken by the perhaps-indigenous black races of Malaysia, Micronesia, and Melanesia, that, while, on the one hand, science possesses at present but scanty information; on the other, no man has devoted more patience and skill to the analysis of such materials as we have, than Mr. Crawfurd. The following is a brief *coup d'œil* over his researches.

"A certain connexion, of more or less extent, is well ascertained to exist between most of the languages which prevail from Madagascar to Easter Island in the Pacific, and from Formosa, on the coast of China, to New Zealand. It exists, then, over two hundred degrees of longitude, and seventy of latitude, or over a fifth part of the surface of the earth. * * * * * * The vast region of which I

[28] *A Grammar and Dictionary of the Malay Language*, London, in 8vo., 1852; vol. i., Dissertation and Grammar.

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have given the outline may be geographically described as consisting of the innumerable islands of the Indian Archipelago, from Sumatra to New Guinea—of the great group of the Philippines—of the islands of the North and South Pacific — and of Madagascar. It is inhabited by many different and distinct races of men, — as the Malayan, the brown Polynesian, the insular Negro of several varieties, and the African of Madagascar."

Beginning with these last, MR. CRAWFURD says, — "Very clear traces of a Malayan tongue are found some 3000 miles distant from the nearest part of the Malayan Archipelago, and only 240 miles from the eastern shore of Africa. From this isolated fact (which the author, pp. cclxxvi — xxxi, shows by historical navigation to be by no means improbable), the importance and the value of which I am about to test, some writers have jumped to the conclusion that the language of Madagascar is of the same stock with Malay and Javanese, and hence, again, that the people who speak it are of the same race with the Malays. It can be shown, without much difficulty, that there is no shadow of foundation for so extravagant an hypothesis." And, in fact, after exhibiting how in their grammars, both groups of tongues resemble each other merely by their simplicity, he manifests, through a comparative vocabulary, that the whole number of known Malayan words, in the Malagasi language, is but 168 in 8340; or about 20 in 1000.

Next, the insular Negroes of the Pacific Archipelagoes — the "*Puwa-puwa*, or *Papuwa*, which, however, is only the adjective 'frizzly,' or 'curling.'" After enumerating their physical characteristics at different islands, he concludes — "Here, then, without reckoning other Negro races of the Pacific which are known to exist,[29] we have, reckoning from the Andamans, twelve varieties, generally so differing from each other in complexion, in features, and in strength and stature, that some are puny pigmies under five feet high, and others large and powerful men of near six feet. To place all these in one category would be preposterous, and contrary to truth and reason." That they have no common language is made evident (p. clxxi) through a comparative vocabulary of seven of these Oriental Negro tongues; whence the unavoidable conclusion that each is a distinct language.

Adverting digressionally to the Australians, — who are never to be confounded, physically-speaking, with any of the woolly-haired

[29] In a later monograph on the "Negroes of the Indian Archipelago" (*Edinburgh New Philosophical Journal*, 1853, p. 78), CRAWFURD maintains, — "There are 15 varieties of Oriental Negroes. * * * * * * There is no evidence, therefore, to justify the conclusion, that the Oriental Negro, wherever found, is one and the same race."

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blacks of the Pacific Archipelagoes. The point of contact between these distinct types is at Cape York, in Torres Straits, and around its neighboring islets. No where else has amalgamation betwixt them been perceived. "As to the great bulk of the inhabitants of Australia, they are assuredly neither Malays, Negroes, nor Polynesians, nor a mixture of any of these, but a very peculiar people, distinct from all the other races of men" (p. clxxvi). In lists of about thirty languages, already known in the yet-discovered parts of Australia, MR. CRAWFURD (p. ccxci) has been unable to detect more than four or five words of corrupt Malay; and that only in the tongue of a tribe at Cobourg peninsula, once Port Essington.

As to Polynesia, our author holds:—"The languages spoken over this vast area are, probably, nearly as numerous as the islands of themselves; but still there is one of very wide dissemination, which has no native name, but which, with some propriety, has been called by Europeans, on account of its predominance, the Polynesian. This language, with variations of dialect, is spoken by the same race of men from the Fiji group west, to Easter island eastward, and from the Sandwich islands north, to the New Zealand islands south. The language and the race have been imagined to be essentially the same as the Malay, which is undoubtedly a great mistake" (p. cxxxiv). After pointing out their physical contrasts with characteristic precision, he adds—"The attempt, therefore, to bring these two distinct races under the same category had better be dropped, for, as will be presently seen, even the evidence of language gives no countenance." Again bringing to his aid comparative vocabularies, MR. CRAWFURD (p. ccxl) ascertains that the total number of Malayan words, in the whole range of Polynesian tongues, is about 80; including even the numerals; which themselves make up nearly a sixth part of that trifling quantity,—on which imagination erects an hypothesis of unity, between the lusty and handsome islanders of the South Seas, and the squat and ill-favored navigators of Malayan waters.

Lastly, the Malays themselves. Sumatra is, traditionally, their father-land; but they were wholly unknown to Europeans before Marco-Polo in 1295; and, 220 more years elapsed before acquaintance with them was real. From this centre they seem to have radiated over the adjacent coasts and islands; subduing, exterminating, enslaving, or driving into the interior, the many sub-typical races of the same stock which appear to have been, like themselves, *terræ geniti* of the Archipelago, distinguished by their restless and ever-encroaching name. "By any standard of beauty which can be

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taken, from the Ganges to the Pillars of Hercules, the Malays must be pronounced as a homely race,"—whose beau-ideal of cuticular charms (as CRAWFURD says in his larger *History*) is summed up in the phrase "skin of virgin-gold color." In their *physique*, the Malays are neither Chinese nor Dravidians, neither Polynesians nor Malagasi, neither Oriental nor Occidental Negroes; but as Dryden the poet sung (p. xvi):—

> "Flat faces, such as would disgrace a screen,
> Such as in Bantam's embassy were seen:—"

in short, nothing else than *Malays*. For the specification of their language and its dialects, the "Grammar and Dictionary" is the source to which we must refer; but, what singularly commends Mr. CRAWFURD'S analytical investigations to the ethnographer is, the careful method through which, by well-chosen and varied comparative vocabularies, he has succeeded in showing, how Malayan blood, language, and influence, *decrease* in the exact ratio that, from their continental peninsula of Malacca, as a starting point, their colonizing propensities have since widened the diameter between their own primitive cradle, and their present commercial factories, or piratical nuclei. Nor must it be forgotten that, upon many of the islands themselves, both large and small, there exist distinct types of men, independently of Malayan or other colonists on the seaboard, speaking distinct languages. Thus, in Sumatra, there are 4 written, and 4 unwritten tongues, besides other barbarous idioms spoken in its vicinity: at Borneo, so far as is yet known of its unexplored interior, there are at least 9; at Celebes, several. At the same time that, according to MR. LOGAN, each newly-discovered savage tribe, like the *Orang Mintirá*, the *Orang Benuá*, the *Orang Muka Kuning*, &c., amid the jungle-hidden creeks around Singapore, presents a new vocabulary.

Being one of the few Englishmen, morally brave enough to avow, as well as sufficiently learned to sustain, by severely-scientific argument (pp. ii–vii, and elsewhere), polygenistic doctrines on the origin of mankind, MR. CRAWFURD'S ethnological opinions are entitled to the more respect from his fellow-philologues, inasmuch as—without dispute about a vague appellative, "Malayo-Polynesian,"—his philosophic deductions must logically tally with those continental views, to which a Franco-Germanic utterance is given at the close of our section IIId.

Upon the various systems of linguistic classification, through which each unprejudiced philologist—*i. e.*, to the exclusion always

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of preconceived dogmas fabricated, as Koranic Arabs would say, *fi aydmena ed-djahïlïeh*, "during our days of ignorance"—defines his more or less scientific, but ever-individual, impressions, differences of opinion must inevitably ensue; some scholars reasoning from one stand-point, others from another: nor would we, when closing this parenthesis about the term "Malayo-Polynesian," overlook the physiological fact indicated by Prof. AGASSIZ,[30] viz: that identities among types of men linguistically similar, whilst historically and ethnically different, do sometimes arise only from similarity in the internal "structure of the throat"—anatomical niceties imperceptible to the eye perhaps, but not the less distinctly impressive on an acute and experienced ear.]

Of all the families of languages at present recognized on the surface of our globe, there only remains for us to examine the *American* tongues. Endeavor has been made to attach them to the Polynesian family; but from these they essentially distinguish themselves, and we shall see presently that certain traits assimilate them, on the contrary, to African languages.

Let us signalize a primary fact. It is that, whilst the populations of the two Americas are far from offering a great homogeneity of physical characters, their languages, on the contrary, constitute a group which, as relates to grammar, affords an unity very remarkable.

That which distinguishes all these tongues is a tendency, more apparent than that among any other linguistic family, to *agglutination*. The words are agglomerated through contraction,—by suppressing one or several syllables of the combined radicals—and the words thus formed become treated as if they were simple words, susceptible of being again employed and modified like these. This property has induced the giving to the languages of the New World the name of *polysynthetical*,—which M. F. LIEBER has proposed to alter into that of *olophrastic*.

Besides this characteristic, there are several others that, without being so absolute, seem nevertheless to be very significant. Thus, these idioms do not in general know our distinction of gender; in lieu of recognizing a masculine and a feminine, they have an animate and an inanimate gender. I have said above, that there is one trait which is common to them and to divers idioms of Polynesia, as well as to the Hottentot tongues. It is the existence of two plurals (and sometimes of two duals), exclusive and inclusive, otherwise termed,

[30] *Christian Examiner*, Boston, July, 1850, p. 31:—*Types of Mankind*, p. 282.

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particular and general. The exclusive plural, in certain dialects, applies itself to the orator, and to the community to which he belongs, by excluding the others; whereas, in sundry dialects, this same plural applies to those in whose name one speaks, to the exclusion of the persons to whom one is addressing a discourse.

One trait of the grammar of American languages, that has greatly struck the first Europeans who sought to grasp their rules, is what they have called *transition*. This process, otherwise intimately connected with polysynthetism, consists in dissolving the pronoun indicative of the subject,—no less than that one indicating the object,—into the verb, so as to compose but a single word. Hence it follows that no verb can be employed without its governing case (*régime*). The number of these transitions varies according to the languages, and the pronoun incorporates itself with the verb generally by suffixes. By means of a modification of the principal radical, American tongues arrive at rendering all the accessory or derived notions that attach themselves to the idea of verb. Hence arises a vast number of *voies*. These changes constitute all the riches of the New World's idioms. This abundance of changes is above all striking in the *Algonquin*, and in *Dahkota*,—the language of an important Sioux tribe. On the contrary, in the *Moxo*,—a tongue of South America, the conjugations reduce themselves to one. Here we have a new trait of resemblance between the idioms of Africa and those of the New World.

A classification of American languages has been attempted. It is a difficult undertaking; because, in general, amid populations that live by tribes exceedingly fracted, and in a savage state, words become extremely altered in passing from one tribe to another. New words are created with great facility; and were one to take but the differences into account, it might be believed that these languages are fundamentally distinct. The erudite Swiss, long a distinguished citizen of the United States—successor, in philology, to a learned Franco-American, DUPONCEAU—MR. GALLATIN, has found in North America alone some 37 families of tongues, comprising more than 100 dialects; and even then he was far from having exhausted all the idioms of that portion of the world. It is true that he embraces, within his classification, the *Eskimaux* and *Athapascan* idioms, which appertain, as well as certainly the former race, to the Ougro-Finnic stock,—otherwise termed the boreal branch. Among North American families, those of the *Algonquin*, *Iroquois*, *Cherokee*, *Choctaw* and *Sioux*, are the most important; but, concerning the indigenous tongues spoken around the Rios, Gila and Colorado, philological science hitherto possesses only vague information.

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At the centre of America we meet with four families, viz: the family *Quicho-Maya*, of which the chief representatives are the idioms of Yucatan;—the second family is exhibited in the *Otomi*, which at first had been erroneously made a completely separate type,—the third is the *Lenca* family, principally spread over the territory of Honduras,—and lastly, the fourth family is represented by the *Nahuatl*, otherwise called the ancient Mexican; of which we possess literary monuments written in a kind of hieroglyphics.

The *Quichen*, or *Quichoa*—language of the Incas—comprehends several dialects, of which the principal is the *Aymara*. The Quichoa, of all the families of the New World, possesses most prominently the polysynthetical character. The *Guarani* family, to which the *Chilian* attaches itself, manifests a very great grammatical development. It was spread throughout the south and east of austral America, and was spoken over a vast expanse of territory. Finally, the two families, the *Pampean* or *Moxo*, and the *Caraïb*, occupy, in the hierarchical ladder of American idioms, the very lowest rungs. In these there is excessive simplicity,—for instance, in the *Galibi*, spoken by savage tribes of the French Guyana, and which belongs to the Caribbean family. One finds in it neither gender nor case; the plural is expressed simply by the addition of the word p a p o, signifying *all*, and serving at one and the same time for the noun as well as the verb. In this last part of a discourse, the persons are not discriminated; and the same form acts in the plural, no less than in the singular, for the three persons.

American languages have, then, also passed through very different phases of development; but, even when they have attained, as in *Quichoa* and the *Guarani*, a remarkable degree of elaboration, they have been unable, notwithstanding, to overcome the elementary forms upon which they had been scaffolded.

In the presence of such existing testimonies, of this gradual development, it becomes, henceforth, impossible to conclude anything from those analogies signalized between American and African languages, as regards imagined filiation. The aspect of two vast linguistic groups, placed at distances so remote, might have engendered a supposition of some links of proximate relationship between the populations speaking them, if, in view of their *physique*, the Indians of the New World, and the negroes and Hottentots of Africa, were not so entirely different. But, seeing that we have established each floor (*étage*) of linguistic civilization—if one may so speak—we cannot admit that these tongues have been transported from Africa to America, or, at least, that their grammar already

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governed the idioms spoken by such supposititious emigrants. Similitude between the two groups shows us merely, that the native aborigines of Africa and of America possessed an analogous faculty of language; and that neither could rise above a certain level, which, at first sight, may have been taken for a common characteristic, and as a sign of filiation.

SECTION III.

The sketch we have just given of the families of tongues spread over the globe's surface has led us to observe, that the linguistic families coincide (with tolerable exactitude) with the more trenched divisions of mankind.

Each superior race of man is represented by two families of languages corresponding to their largest branches, viz: the WHITE race, or *Caucasic*, by the Indo-European and Semitic tongues;—the YELLOW race by the monosyllabic and the Ougro-Tartar tongues, otherwise called "Finno-Japonic." To the BLACK race correspond the tongues of Africa;—to the RED race, the tongues of America;—to the MALAYO-POLYNESIAN races, the tongues of that name;—to the AUSTRALIAN race, the idioms of Australasia. No more of homogeneity is beheld, however, amongst the languages spoken by those inferior races inhabiting Africa, America, Oceanica, or Australia.

The multifarious crossings of these primitive races,—crossings that may be called those of the secondary race-floor—are represented by families that possess characteristics less demarcated, and which participate generally of the two families of idioms spoken by the races whose intermixture gave birth to them.

The *Dravidian* languages partake of the Ougro-Tartar and the monosyllabic tongues. The *Hamitic* languages are intermediate between the Semitic and the African tongues. The *Hottentot* languages hold to the African and the Polynesian tongues; certain languages of the Soodàn offering, also, the same character, but with a predominance of Polynesian elements; whereas it is the African element that preponderates in Hottentot idioms.

The apparition of these grand linguistical formations is, therefore, as ancient as that of the races themselves. And, in fact, speech is with man as spontaneous as locomotion,—as the instinct of clothing and of arming oneself. This is what the Bible shows us in the abridged recital it gives of Creation. God causes to pass before A-DaM, *the-Man*, all the animals and all the objects of the earth (as

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it were, in a cosmorama), and *the-Man* gives to each a name.[31] It is impossible to declare more manifestly that speech (language) is an innate and primitive gift. From the instant that man was created, he must have spoken, by virtue of the faculty he had received from God.

The use of this faculty has also been as different among the diverse races of mankind as that of all other faculties. And, in the same manner that there have been races pastoral, agricultural, piscatory and hunting,—that there are populations grave, and populations volatile; adroit and cunning tribes, as well as tribes stupid and shallow—so there have been races with language developed and powerful, populations that have attained a high degree of perfection in speech; whereas others have very quickly found their development arrested, —just, indeed, as there have been, and ever will be, races progressive and races stationary.

We are unable to pierce the mystery of the origins of humanity. We are ignorant as to a process by which God formed man, and the Bible itself is mute in this respect. It neither resolves, nor indicates the difficulties inherent in, the first advent of our species. But, it is very evident that, in speaking of mankind in general,—that is to say, of A-DaM; for such is the sense of the word—it designates, according to Oriental habits, the race by an individual: in precisely the same method that, in the ethnic geography of the children of NOAH (*Genesis* x), it represents an entire people by a single name. Thus, Genesis speaks to us only of the *genus homo*, which it personifies in an individual to whom it attributes the supposed instincts of the first men. This being at present settled, it cannot be concluded from biblical testimony that all human beings spoke one and the same tongue at the beginning,—any more than we can conclude that there had been but one primitive couple.

From the origin there were different languages, as there were likewise different tribes; and from out of these primitive families issued all the idioms subsequently spread over the earth. Because, the faculty of speech was, at its origin, coetaneous with the birth of mankind; and linguistic types are not now formed, any more than new races of men, or new animals, are being created. Existing types bebecome altered, modified. They cross amongst each other within certain limits,—and with the more facility according as they may

[31] *Genesis*, II, 19:—"JEHOVAH-ELOHIM forma de terre tous les animaux des champs, tous les oiseaux du ciel, et les fit venir vers *l'homme* pour qu'il vît à les nommer; et comme *l'homme* nommerait une créature animée, tel devait être son nom."—(CAHEN's Hebrew text, I, p. 8.)

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already possess greater affinity. They become extinct and disappear: but that is all. The work of creation on our globe is terminated; and all the invisible dynamics which the Creator set in motion, in order to people this physical and moral world, may indeed preserve that which they have produced; but *l'âge du retour* for them has arrived. They have become powerless and sterile for creations that are reserved, without doubt, for other worlds.

A. M.

PARIS, *Library of the Institute* — April, 1856.

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CHAPTER II.

ICONOGRAPHIC RESEARCHES

ON HUMAN RACES AND THEIR ART;

BY FRANCIS PULSZKY.

"Tedd à durva Scythát à Tiberishez, és
Á nagy Róma fiát Bosphorus öblihez
Barlang lészen amott à Capitolium
'S itt uj' Róma emelkedik."

"*Put the rude Scythian on the Tiber,*
And the son of great Rome on the Cimmerian coast,
There the Capitol will become a den,
And here rises a new Rome." (BERZSENYI.)

Letter to Mr. Geo. R. Gliddon, and Dr. J. C. Nott, on the Races of Men and their Art.

MY DEAR SIRS:

Reading your "TYPES OF MANKIND," equally valuable for conscientious research and sound criticism, I could not but be pleased with your felicitous idea of supporting ethnological propositions by the testimony of copious Egyptian, Assyrian, Persian, Greek, and Chinese monuments, in order to prove the constancy of national types, during the historical period of antiquity, by authentic representations. Blumenbach and Prichard only cursorily referred to ancient monuments; your publication was the first[1] to call Archæology into the witness-box for cross-examination in the question of races and

[1] If our work, published early in 1854, may take credit for having somewhat extended and popularized this method of research, the road had been widely opened, ten years previously by MORTON (*Crania Ægyptiaca*, Philada., 1844). Subsequently to MORTON, the same method was applied with singular felicity by M. COURTET DE L'ISLE (*Tableau ethnographique du Genre Humain;* 8vo., Paris, 1849); but, as mentioned in "Types," (p. 724,) I was not aware of M. COURTET's priority until the text of our book was entirely stereotyped. His volume has become so rare, that I was unable to procure a copy during my late stay at Paris, 1854–5. A portion, however, was originally published under the title of "Iconographie des races humaines," in the *Illustration*, Oct. and Nov., 1847: and another formed part of the interesting discussions of the *Société Ethnologique de Paris*, on the "Distinctive Characteristics of the White and of the Black races;" *Séance du* 25 *Juin*, 1847. (See the *Bulletin* of that Society, parent of those in London and New York, *Année* 1847, Tome 1r, pp. 181–206, and 284.) G. R. G.

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nationalities.[2] But, whilst you judiciously selected the most characteristic reliefs of Egypt and Assyria from the classical works of Champollion, Rosellini, Lepsius, Botta, and Layard; all Etruscan, Roman, Hindoo, and American antiquities were excluded from the "Types;" and I felt somewhat disappointed when I found, that as to your Greek representations you were altogether mistaken. You published, on the whole, five busts[3] belonging strictly to the times and nations of classical antiquity, but there is scarcely one among them on which sound criticism could bestow an unconditional approval.

You may find that I am rather hard upon you, as even your critic in the *Athenæum Français*[4] objected only to one of them. Still, *amicus* NOTT, *amicus* GLIDDON, *sed magis amica veritas;* and I hope that if you have the patience to read my letter with attention, you will yourselves plead guilty.

The busts which I am to review are the alleged portraits of LYCURGUS, the Spartan legislator, of ALEXANDER the Great, of ERATOSTHENES, of HANNIBAL, and of JUBA I., king of Numidia.

I. As to the great Lacedæmonian lawgiver, you borrowed his portrait from Pouqueville,[5] who took it from Ennio Quirino Visconti.[6] It cannot be traced farther back. The celebrated Italian archæologist, publishing that head of a marble statue in the Vatican, freely acknowledges that he has scarcely any authority for attributing it to Lycurgus, by saying that he *thinks* the statue *might be* a portrait of the famous one-eyed legislator,—inasmuch as the conformation of the left eye and cheek is different from the right side of the head; and, according to him, such want of symmetry characterizes a man blind of one eye.[7] I leave

Fig. 1.

[2] Blumenbach read a lecture: *De veterum artificium anatomiæ peritiæ laude limitanda, celebranda vero eorum in charactere gentilitio exprimendo accuratione*, at Göttingen, on the 19th of March, 1823, but unhappily it never was published. The notice in the *Göttingen Gelehrte Anzeigen* 1823 (p. 1241,) mentions only that he dwelt upon the correctness of the representations of negroes, Jews, and Persians, on ancient monuments; and remarked that no effigy of the Mongolian type has ever been found on them. Prichard devotes two pages (235 and 236 of his IId volume), to the remains of Egyptian painting and sculpture; but he ignores Rosellini's work, and quotes from the antiquated DENON and the *Description de l'Égypte.*

[3] *Types of Mankind*, p. 104 and 136.

[4] *Athenæum Français*, Paris, 25 March 1854, p. 264.

[5] *Univers pittoresque, Grèce*, pl. 84;—*Types*, p. 104, fig. 4.

[6] *Iconographie grecque*, I. pl. VIII. 2.

[7] *Ibid.* p. 131 of the Milan edition.

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it altogether to your critical judgment whether such an argument is sufficient for baptizing the old statue and calling it *Lycurgus*, whilst the deformity of the face might be the result of the clumsiness or inadvertence of the sculptor, or might represent any other half-faced personage. But even had Visconti proved that the effigy in question was really meant for Lycurgus, being a copy of the statues mentioned by Pausanias,[8] still, the features could not be taken for a real portrait, nor could they have any value for ethnology, since, impossible as it is to fix the date of Lycurgus accurately, it is universally agreed that he lived at the close of the *heroic* and before the dawn of the *historical* age, when art was nearly unknown to Greece. A chasm of at least three centuries separates him from the earliest reliefs and coins we possess. It is therefore preposterous to believe in portraits of Lycurgus in the present sense of the word. Accordingly, Visconti admits that the portrait in question was *created (!)*—like that of Homer,—on national traditions by artistic imagination. The Greeks, with their strongly developed feeling for beauty, were not at all shocked by such *ideal portraits;* their artists, down to the time of Alexander the Macedonian; and even beyond his epoch, did not care much for material likeness, and were only intent upon making the expression of the features answer to the traditional character of the person represented. Thus, for instance, they created the effigies of the "seven sages," and of ÆSOPUS, which once adorned the Villa of Cassius, and now form one of the chief attractions of the Villa Albani at Rome.[9] The most celebrated of those imaginary portraits is the magnificent bust of HOMER,[10] equally known in antiquity and in modern times; for Pliny[11] remarks, speaking of this custom, that "even effigies which do not exist, are invented, and excite the desire to know the features not transmitted, as is the case with Homer." Pausanias proves that in his time there were portraits of Lycurgus existing; of course invented in a similar way: but we may safely state that, even the created effigies of the old law-giver were not of a constant type. The Spartans, at the epoch of their complete subjection to Rome, began to adorn their copper coins with the head of Lycurgus, inscribing them with his name in order that no mistake should be possible; but Visconti, who published two of them,[12] says, that they do not resemble one another.

Thus we arrive at the conclusion that there is no certainty and but little probability about the head published by you, as to its

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[8] PAUSANIAS, lib. iii. c. 14. [9] VISCONTI, *Iconographie grecque*, 1 pl. ix. x. xi. xii.

[10] The best of them is at the Studj at Naples; a good one in the British Museum.

[11] *Historia Naturæ*, XXXV. § 2. [12] VISCONTI, *Icon. gr.*, 1 pl. viii. 5, 6.

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having ever, before Visconti, been imagined to represent Lycurgus; and that in no case could it be taken for anything else than a fancy-portrait, not more to be trusted than the statue of COLUMBUS, commonly called the "ninepin-player," before your Capitol, or the relief portrait of Daniel Boone in the Rotunda at Washington.

II. Your portrait of ALEXANDER THE GREAT, likewise from Pouqueville,[13] is by far more authentic than the pretended likeness of Lycurgus. The original marble bust, of which you give a copy, is now placed in the Louvre at Paris, as a memorial of Napoleon I.; who received it as a present from the Spanish Ambassador, the Chevalier d'Azara. The accomplished Chevalier caused a panegyrical dedicatory inscription to be sculptured on the side of this bust, before presenting it to the modern Alexander. The Bourbons, unconsciously following the traditions of the Emperor Caracalla, and of several Egyptian Pharaohs, ordered the mention of their obnoxious predecessor to be obliterated on this monument; but traces of the destroyed inscription sufficiently record the resentment and bad taste of those who had "rien oublié ni rien appris." The bust was originally found near Tivoli, the ancient Tibur, in the year 1779, bearing the inscription

Fig. 2.

ΑΛΕΞΑΝΔΡΟΣ
ΦΙΛΙΠΠΟΥ
ΜΑΚΕΔ

The form of the letters shows, according to Visconti,[14] that this excellent piece of sculpture could not have been contemporaneous with the conqueror of Persia; and that it probably belongs to the last epoch of the Roman Republic, or to the beginning of the Empire. Still, as the features of the Macedonian king were in his life-time immortalized by such eminent artists as Apelles, Pyrgoteles and Lysippus; and since his portraits served as seals and emblems of coins soon after his death, it may seem tolerably certain, that the marble bust in question gives us really the likeness of the conqueror. Yet there remains one difficulty about it. The bust having been found in a mutilated state, the broken nose was restored, without consulting the coins of Lysimachus, one of the generals and successors of Alexander, who had the portrait of his late master put on them.

[13] *Grèce*, pl. 85:—*Types*, p. 104, fig. 6.

[14] *Icon. grecque*, II. page 47.

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Thus the restoration altered the features a little, a somewhat longer nose being attached to the bust, than the earlier effigies on coins, statues, and mosaics warrant. With the slight exception, therefore, that the tip of the nose is too long and too pointed, the portrait in the "Types" ought to satisfy sound criticism. Still, Staatsrath Koehler, the renowned but presumptuous Russian archæologist, hypercritically rejects the Azara-bust, as of no use to iconography;[15] but as he omits the reasons for his harsh sentence, he must allow us to be so malicious, and to infer, from the date of his essay,[16] written during the Russo-Persian war, that he was disappointed at not being able to discover a likeness between the bust of the great Macedonian and the would-be inheritor of his schemes, the late Czar Nicholas: at the same time that French archæologists maintain that ALEXANDER, AUGUSTUS, and RAMESSES, bear a striking likeness to Napoleon I.

But if the Russian archæologist went too far on the side of hypercriticism, the author of "Inscriptions of the British Museum," and the arranger of the Egyptian Court in the Sydenham Crystal Palace, err considerably more on the other side; having been taken in by one of the most barefaced archæological impostures of modern times. In 1850, a 4to volume (360 pages text and LXI plates) was published at Didot's by Mons. J. Barrois, under the suspicious title of "Dactylologie et Langage Primitif;" in which pl. LIX gives "the portrait of Alexander taken during his life (*représenté de son vivant*) from a bas-relief painted in four colours by Apelles, (!), and found in 1844 under the sand of a subterraneous tomb at Cercasoré on the Nile." Since this wonderful book was printed for private circulation, and did not get into the book-market, criticism remained silent; but the portrait having been introduced into the Crystal Palace, we must protest against the clumsy forgery which attributes an *Egyptian* bas-relief to Apelles the Greek painter. Besides, though its style is Pharaonic, the eye is foreshortened in the Greek way; the Egyptian cartouche is false; whilst the Greek inscription, wrongly spelt,[17] is neither Egyptian nor Greek, and the form of its letters is partly archaic, partly Latin. I was shocked at the very first sight of such a cast exhibited among copies of the best remains of Egypt; and afterwards learned from Mr. Gliddon, that it is generally known in Paris, how the relief (with its companion, which purports to represent HEPHÆSTION), had been manufactured ex-

[15] *Abhandlung über die geschnittenen Steine*, &c. St. Petersburg, 1851, p. 10,—referring to his essay in BÖTTIGER's *Archæologie und Kunst*, Band 1, page 13.

[17] The inscription runs as follows:

ALEKSANDPS
YIOS AMOYNS

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pressly to entrap M. Barrois, the wealthy amateur, who does not believe at all in Champollion, and consequently bought it for 6000 francs. It was certainly beyond the expectation of the French forgers that they should cheat two English archæologists also.

III. ERATOSTHENES of Cyrene in Africa, the famed Greek librarian of king Ptolemy Evergetes at Alexandria, the greatest Astronomer, Geographer, and Chronologist of his time, would indeed deserve a place of honor in any ethnographical publication; but, unhappily, there exists no antique likeness of that eminent man, although the Chevalier Bunsen prefixed the ideal drawing of a Greek bust to the second volume of his "Ægyptens Stelle in der Weltgeschichte."[18] Yet this effigy is altogether a modern fancy-portrait, which originates solely from the desire of the learned Chevalier to express his veneration for the Sage of Cyrene. I have suspected that it is not through accident, but by design, that the snub-nose of the German edition has been twisted into a somewhat aquiline form for Longman's English translation of the same work. Possibly, Bunsen, in fear lest his authority might introduce a false Eratosthenes into good society — as really has happened in the "Types,"—took this indirect method of unmaking the creature of his own imagination.

Fig. 3.

Fig. 4.

IV. The portrait of HANNIBAL was copied for the "Types," on the faith of the "Univers pittoresque," (*Afrique ancienne, Carthage*), a collection of several works by different authors of different merit. Thus, for instance, next to the description of Ancient Egypt by Champollion-Figeac, and of China by Pauthier, we find Italy described by the shallow Artaud, and Greece by Pouqueville. However, the alleged portrait of the Carthaginian hero did not answer your ethnographic expectations in any way, not being of the

[18] Hamburg, 1845, frontispiece. Compare the one in *Egypt's Place in Universal History*, London, 1854, II., and p. xxi. The same genius for invention has supplied Archæology with an equally-authentic portrait of MANETHO: — *Op. cit., Drittes Buch*, frontispiece

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Shemitic cast; and you recognized at once the highest Caucasian type so strongly marked in his face as to lead to the suggestion, "that if his father was a Phœnico-Carthaginian, one would suspect that his mother, as among the Ottomans and Persians of the present day, must have been an imported *white* slave, or other female of the purest Japhetic race."[19] This remark, embodying an acknowledgment of the Japhetic cast of the features, was happily added to the "*portrait;*" which can be found on some elegant silver coins accompanied by a Phœnician inscription. From the time of Fulvius Ursinus[20] it was always taken for the effigy of Hannibal, until Pellerin,[21] and Eckhel, [22] proved that these coins are not Carthaginian, but Cilician and Phœnician. "In 1846," says the reviewer of "Types," in the *Athenæum Français*, "the Duc de Luynes found out that it was the portrait of a Satrap of the king of Persia, who governed Tarsus in the time of Xenophon; and thus," he adds, "in the effigy published by Messrs. Gliddon and Nott, type, country, epoch, and race, are all mistaken"![23] A sweeping conclusion indeed; still, it is not complete enough; seeing, we may add, that the reviewer himself is likewise mistaken. Had he studied the Essay of the Duc de Luynes with sufficient care, he would have found that the head, formerly believed to be the effigy of Hannibal, and as such prefixed to most of the editions of Silius Italicus, is not at all a portrait, but the ideal representation of a hero; since it is not only found on the silver coins of Dernes of Phœnicia (or rather, according to W. H. Waddington, of Datames of Cilicia),[24] but likewise on the coins of Pharnabazus, the powerful Satrap of Phrygia and Lydia, son-in-law to Artaxerxes Mnemon. It cannot, therefore, be meant for either of them; so much the less, as there is no example of any Satrap stamping coin with his own portrait.

Visconti, in his *Iconographie grecque*,[25] attributes a totally different bust to Hannibal. Fully aware that the effigy on the above-mentioned silver coins could not represent the illustrious Carthaginian, he did not like to lose the illusion that we possess such an interesting portrait; especially as the elder Pliny complains[26] that "two statues were erected to Hannibal in the city, since so many foreign nations had been received into communion with Rome, that all former differences between them were abolished." Accordingly, Visconti attributes a small bronze bust to the greatest enemy of the Romans;

[19] *Types of Mankind*, p. 136, fig. 37; and *Southern Quarterly Review*, Charleston, S. C., Oct. 1854, p. 294, note.

[20] *Imagines illustr. virorum*, pl. 63.

[21] *Recueil*, iii. p. 59.

[22] *Doctrina nummorum veterum*, iii. p. 412.

[23] *Athenæum Français*, Mars, 1854, p. 264.

[24] *Athenæum Français*, Fevrier 1856, p. 12.

[25] Vol. iii. pl. xvi.

[26] *Hist. Nat.* xxxiv. § 15.

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because, having been found at Pompeii together with the bust of Scipio Africanus, it might have been its companion. He discovers an African cast in the features of the bust, although he does not enable us to understand what African peculiarity he means; and he forgets that Hannibal ought to portray the true Shemitic, not any African type. Visconti refers likewise to the peculiar head-dress of the bust, as being analogous to that of king Juba; but Juba was a Numidian, (inheriting some Berber blood, probably,) not a Carthaginian by lineage; and the resemblance is altogether imaginary. Lastly, he identifies the features of the bronze with those of a fine bearded and helmeted head often found on gems,[27] and traditionally ascribed to Hannibal, because one of the copies bears evidently the half-effaced inscription HA...BA..[28] Unfortunately for Visconti, the gems and the bronze bust have not one single feature in common between them; and we are even able to trace the origin of the tradition and of the inscription mentioned by the renowned author of the "Iconographie"—to a rather modern date. There exists a celebrated colossal marble statue in the ante-room of the Capitoline Museum, which had always puzzled antiquaries. It represents a bearded warrior, with a stern and majestic countenance; and would have been taken for Mars, did we not know, that all the statues of the god of war, with the exception of the earliest archaic representations, were beardless. Another designation was therefore wanted; and inasmuch as among the adornments of the magnificent armour of the colossus, two elephant heads occupy a prominent place, he was called Pyrrhus, and sometimes Hannibal,—both generals having made use of elephants in their wars against Rome. The gems mentioned by Visconti are evidently antique copies of the head of the Capitoline statue, from which they obtained the name. As to the inscription of the Florentine gem mentioned by Gori, we can affirm that it is a mediæval forgery; because, on another repetition of the same head,[29] we find an analogous imposition, viz: the same Phœnician letters which are struck on the Cilician coins of Datames, and were transferred from the medal to the gem by some mediæval engraver under the (false) belief that they read: "Hannibal." Besides,—the Capitoline statue and the gems resembling it are no portraits at all; they have ideal features, and represent *Zeus Areios*, the martial Jupiter, as beheld on the coins of the town Iasus in Caria,[30]

[27] Gori. *Mus. Flor.*, 11, 12. [28] Gori, *Inscriptiones per Etrur.*, 1 pl. 10, p. 4.

[29] Winckelmann, *Pierres gravées du feu Baron Stosch*, p. 415, nos. 43:—Raspe, *Catalogue*, p. 559, No. 9598.

[30] Streber, *Abhandl. der philologischen Classe der Münchner Academie*, Theil 1, Tafel 4, No. 5.

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no less than on several unpublished bronze statuettes in different collections.

V. It is more difficult to object to the portrait of JUBA I., king of Numidia; the original of the head published by you[31] being the type of a silver coin which bears the Roman inscription "Juba Rex." Still, an anonymous archæologist, (Steinbüchel,)[32] suggests, that this effigy, with its peculiar African head-dress, might represent an African *Jupiter*, rather than a king, since his features are somewhat ideal, and the sceptre on the shoulder of the bust is an attribute of Jupiter, or of Juno, exceptionally only given to kings. As your object in exhibiting the portrait of Juba was principally to show, to some illiterate Philæthiopians, that the inhabitants of Northern Africa were not negroes, the explanation of Steinbüchel becomes a still stronger argument for your views. If it can be maintained, then the published head is not the effigy of an individual Mauritanian king, by descent and marriage closely allied to several Greek dynasties (for instance, to the Ptolemies), but is the representative type of the population of the northern shores of Africa; and the slight modification of the Arab features, observed in his face, becomes, therefore, a new argument for the affinity of Berber and Shemitic races. The peculiar head-dress of the bust is mentioned as African by Strabo,[33] who says that the same costume prevailed all along the northern coast of Africa up to Egypt, where it borders on Libya. Silius Italicus describes it very characteristically as a rigid bonnet formed by long hair overshadowing the forehead.[34] We see it on the triumphal arch of the Emperor Constantine, as distinguishing the Numidian auxiliary horsemen;[35] and it seems that it extended even beyond the limits mentioned by Strabo, since it is found upon Egyptian reliefs representing Nubians as well as full-blooded Negroes; for instance, compare "Types," page 249, and figs. 166, 167, 168, 169, 170, and 171.

Fig. 5.

VI. Besides these effigies belonging to the domain of Greek art,

[31] *Types of Mankind*, p. 136, fig. 38:—*Afrique Ancienne, Carthage.*

[32] *Katalog einer Sammlung geschnittener Steine*, Wien, 1834, p. 11, No. 144.

[33] STRABO, xvii. p. 528.

[34] PUNICORUM, lib. 1, v. 404

[35] BELLORI, *Arcus triumph.*

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we find in the "Types"[36] the Egyptian portrait of the famous CLEOPATRA, which undoubtedly gives us a most charming effigy of this refined, sensual, intriguing Queen; last scion of an illustrious Macedonian race, who had witnessed at her feet Julius Cæsar and Mark Antony, and who for a short time might well have believed herself the mistress of the Eastern world. Nevertheless, doing full justice to the Egyptian artist, we cannot help remarking that, though all the Egyptian effigies of this Queen, throughout her ancient realm, resemble one another perfectly — just as the portrait of Queen Victoria has remained entirely unaltered on all her gold sovereigns for the last twenty years, — Cleopatra's Greek coins show a female head of entirely different character; which, if really her portrait, gives us but a poor idea of the taste either of Julius Cæsar or of M. Antony. This difference between the Greek coins and Egyptian effigies, common to all the Ptolemies, is rather puzzling, and has until now not yet been satisfactorily explained; but Lepsius is expected to treat this question fully and frankly in the iconographic portion of his great publication.[37] In the mean time it is only fair to remark, that the native Egyptian portraits of some of these kings, *ex. gr.* Physcon, agree far better with their historical character, than do their effigies on the Greek coins; which are all somewhat idealized, until we reach this last Cleopatra, who was evidently a much finer specimen of a Queen in reality, than she appears on her medals.

Fig. 6.

Having done the work of demolition to my best abilities, allow me now to review the human races in respect to their *aptitude for Art*, and to inquire into the distinct and typical characteristics of national art among the different types of men, — a study that will establish the following facts:

I. — That whilst some races are altogether unfit for imitative art, others are by nature artistical in different degrees:

II. — That the art of those nations which excelled in painting and sculpture, was often indigenous and always national; losing not

[36] *Op. cit.*, p. 104, fig. 8: — ROSELLINI, *Monumenti dell' Egitto*, M. R., XXII., fig. 82. I notice your judicious alteration of the *eye*.

[37] Cf., in the interim, LEPSIUS, *Ueber einige Ergebnisse der Ægyptischen Denkmäler für die Kenntniss der Ptolemäergeschichte*, Berlin, 1853, pp. 26, 29, 52.

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only its type but likewise its excellence by imitating the art of other nations:

III. — That imitative art, derived from intercourse with, or conquest by, artistic races, remained barren, and never attained any degree of eminence,—that it never survived the external relations to which it owed its origin, and died out as soon as intercourse ceased, or when the artistic conquerors became amalgamated with the unartistic conquered race:

IV.—That painting and sculpture are always the result of a peculiar artistical endowment of certain races, which cannot be imparted by instruction to unartistical nations. This fitness, or aptitude for art seems altogether to be independent of the mental culture and civilization of a people; and no civil or religious prohibitions can destroy the natural impulse of an artistical race to express its feelings in pictures, statuary, and reliefs.

Yours, very truly,

F. P.

London, St. Alban's Villas, Highgate Rise,
October, 1856.

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I.—GENERAL REMARKS ON ICONOGRAPHY.

> "ICONOGRAPHIA statuas omnis generis, protomas, picturas, musivaque opera describit. Hanc sexcenti celebres opifices olim coluerunt. *Imaginum amore,* inquit Plinius, *flagrasse quosdam testes sunt et Atticus ille Ciceronis, edito de his volumine, et Marcus Varro benignissimo invento insertis voluminum suorum fœcunditati, non nominibus tantum septingentorum illustrium, sed et aliquo modo imaginibus, non passus intercidere figuras, aut vetustatem œvi contra homines valere.*" (FABRICIUS, *Bibliographia Antiq.*, 1716, p. 124.)

WHENEVER the metaphysical Germans speculate about the philosophy of history, they invariably draw a broad distinction between the *progressive races* (Culturvölker)—to whom mankind is indebted for civilization, for the advancement of sciences, for all the forms of political administration of society, and for the moral elevation of the soul,—and the *passive races*, who scarcely possess any history of their own. All the white and yellow, and a few brown and red nations, are put down among the former; the majority of the Browns, the hunter-tribes of the Reds, and all the Blacks, being classed among the latter. But again, among the progressive races there is a very remarkable difference as regards their part in history. The Egyptians and Assyrians, the Shemitic races of Phœnicia, Palestine and Arabia, the Persians, Greeks, Etruscans and Romans, and lastly the Teutonic and neo-Latin nations, whether pure or blended with one another and with Celtic elements, took in succession the lead of mankind; whilst the pure Celts, the Sclavonians, the Finnic, Turkoman, Tartar and Berber races, remained in the background. We need not say that, going one step farther, we find the mixed populations of Great Britain and of North America (commonly but wrongly called the Anglo-Saxon race), and the equally mixed population of France, to *claim* to be at the head of the modern progressive races; scarcely to admit the equality of the German proper; and to be fully convinced of their own superiority over Italians and Spaniards, Dutch and Scandinavians, Celts and Sclavonians, Hungarians and Finns, rejecting altogether the pretensions of Turks, Arabs, Persians and Hindoos, to civilization. This scale of national inequality has evidently been construed with regard to the political power, the commercial spirit, the literary activity, and the application of the results of science to manufactural industry among the different races. Considered from the point of view of imitative *Art*,—of painting and sculpture,—the result will be some-

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what different: and whilst it is certain that art has never flourished but among the progressive races, we shall find that nations to whom we are indebted for some of the most important discoveries, and to the highest truths revealed to mankind, are altogether deficient in art, — as, for instance, the Shemites without exception; that others, although wielding the most extensive political power, such as the Romans of old, the Scandinavian Northmen, the Anglo-Saxons, the Sclavonic races, never attained a high devolopment of painting and sculpture, and were surpassed by the Greeks of yore, and by the Italians and Spaniards, the Germans and Dutch. History teaches us that eminence in painting and sculpture is not the result of either high mental culture or political power, and that it does not always accompany the refinement and wealth of nations. We find it growing out of a peculiar disposition of some nations, predestined as it were for art; whilst other races, living under the same social, climatic, and political conditions, never rise artistically to represent the outward world in colors or in plastic forms. And again, among the artistical nations we meet with the most remarkable differences in treating the same subjects. Some strive for the most scrupulous *reproduction* of nature, and cling to faithful imitation; others are creative, embellishing whatever they touch: some show a deep understanding and love of nature; others concentrate their power exclusively on the representation of the human body: some excel by the brilliancy and harmony of their coloring; others charm by their correctness in plastical forms: but all of them express their nationality, their peculiar relation to God, nature and mankind, throughout their works. Therefore, even an inexperienced eye catches the difference between Egyptian and Assyrian, Indian and Chinese, Greek and Etruscan, Italian and German, French and Spanish, art: and the artistically-educated student feels no difficulty in discriminating the minute distinctions of schools, in each national art; and generally discovers any attempt at forging pictures and statues. The inherent and indelible nationality of every monument of art is, in fact, the only safeguard against imposition; since it is just as impossible for Gibson or Powers to sculpture an antique statue, and for Sir Charles Eastlake or Mr. Ingrès to paint a Raphael (or even a Carlo Dolce, or any second-rate Italian picture), as it would have been impossible for Alfieri to write a play of Shakespeare, and for any New Englander to become the author of a tragedy which could pass for the work of Corneille. Still, to establish the fact that art is always national and not cosmopolitan, we must pass in review the great artistic races from the time of the Egyptian pyramids down to our own days — a period of some five thousand years.

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II.—EGYPTIAN ART.

Αἴγυπτόνδ' ἰέναι, δολιχὴν ὁδὸν ἀργαλέην τε.
(HOMER, *Odyss.*, iv, 481.)
"It only remains to say with Homer,
To visit Egypt's land, a long and dangerous way."
(STRABO, *lib.* xvii.)

THE earliest of all monuments of art carry us back to the cradle of our civilization, Egypt, of which we are scarcely accustomed sufficiently to appreciate the real importance to the history of mankind. We speak here not only of its political power and high culture under the Pharaohs, nor only of the literary labors of the critical Alexandrines under those Ptolemies who were fond to be protectors of Greek science; but we allude likewise to the fact that, long after Egypt had merged into the Roman empire, became converted to Christianity, and lost all tradition of independence, still its peculiar national character was not swamped, nor its tough energy broken. It manifested itself strongly enough in the Athanasian controversy, in the Monophysite schism, in the many saints and legends of Christian Egypt, and in the most important establishment of anachoret and monastic rule which originated in the Thebais, and thence spread all over the world, as an evidence of the vitality of that nation and of the indelibility of its moral type.

At the very dawn of history we meet in Egypt with statues and bas-reliefs which, according to the hieroglyphic inscriptions, are certainly contemporaneous with the builders of the pyramids; though it is rather difficult to designate the precise century before our era to which they belong, because the Egyptians made no use of any conventional system or astronomical cyclus for their Chronology. Mariette's discoveries in the Serapeum at Memphis have proved that no *Apis-cyclus* (equal to 25 years) was ever known to the Egyptians,[38] as formerly believed by scholars from the interpretation of a passage in Plutarch. As to the Sothiac cyclus, it was certainly known, but its use for chronology remains more than doubtful.[39] The Egyptians possessed no historical era; they dated their public documents by the years of each king's reign. With such a system the least interruption of the dates vitiates all the series.

[38] MARIETTE, *Renseignments sur les soixante-quatre Apis*, in the *Bul. archéol. de l'Athenæum Français*, May—Nov., 1855:—ALFRED MAURY, Des travaux modernes sur l'Égypte Ancienne;" *Revue des Deux Mondes*, Sept., 1855, pp. 1060–3.

[39] BUNSEN (*Ægyptens Stelle*, iii. p. 121, *seqq.*) tries to prove a Sothiac Era *of Menephthah*; but is not borne out by any astronomical dates on the monuments. *Vide* also the critical discoveries of BIOT, *infra*, Chap. V.

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Unfortunately for our knowledge of Egyptian chronology,[40] the list of Dynasties by Manetho has reached us only in mutilated extracts, and the ciphers annexed to the names of the sovereigns have evidently been tampered with. They are not the same in the several extracts of Eusebius, Syncellus, and Africanus; nor do they tally with the original hieroglyphic documents. So much, notwithstanding, we can say with mathematical certainty,—now that the complete chronology of the XXIInd, or Bubastite, Dynasty has been reconstructed by Mariette from the documents of the Serapeum at Memphis,—that the first year of the reign of PSAMMETICUS I., answers to the 94th year of the *era of Nabonassar*, or to the Julian year 654 B. C. The same series of documents places the beginning of the reign of TIRHAKA,—ally to king Hezekiah against Sennacherib of Assyria,—towards 695 B. C.[41] But here the dates may be already uncertain to the extent of one or two years; and beyond them the consecutive series of precise numerals ceases altogether. Some further dates have been astronomically determined, but the intermediate figures cannot be taken for more than approximate. For the XXIInd dynasty we obtain a synchronism, and a means of rectifying chronology, through the conquest of Jerusalem by SHESHONK I., which happened in the *5th year* of Rehoboam, king of Judah.[42] But even this synchronism does not yield an exact date, inasmuch as the chronology of the Book of Kings presents some difficulties not yet satisfactorily resolved.[43] Accordingly, Newman places the capture of Jerusalem in the year 950 B. C.;[44] Bunsen in the year 962;[45] and Winer in the year 970.[46] At any rate, it is certain that king SHESHONK began to reign before the middle of the tenth century, B. C.

An astronomical fact, the heliacal rising of the dog-star, under Ramesses III., of the XXth dynasty, recorded in a hieroglyphical inscription at Thebes, defines the epoch of this king, and assigns his place, according to the calculation of M. Biot, to the 13th century B. C.; or just to the same period which had been ascribed to him before the discovery of this inscription, solely on the approximating calculation of the lists as rectified by the monuments.

[40] See for the following, principally DE ROUGÉ'S *Notice Sommaire*, Musée de Louvre, p. 19 seqq.

[41] The Hebrew chronology makes it nearer to B. C. 710, and is scarcely reconcilable with the Egyptian computation about this synchronism.

[42] Cf. BRUGSCH, *Reiseberichte aus Ægypten*. &c., Berlin, 1855—"Die Halle der Bubastiten-Königs" at Karnac, pp. 141–4.

[43] NEWMAN, *History of the Hebrew Monarchy*—Appendix to Chapter IV., on Chronology.

[44] *Op. cit.* p. 151 and 160.

[45] *Ægyptens Stelle*, iii. p. 122.

[46] *Biblisches Woerterbuch*, voce Israel. So likewise SHARPE, *Historic Notes on the Books of the O. and N. Testaments*, London, 1854, pp. 64, 83.

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For the XIXth dynasty, we have seemingly again a synchronism, that of Moses with RAMESSES II., and with Menephthah II.; but it is of little value for exact dates, because the duration of the government of the Hebrews by their Judges is very uncertain. Biot's astronomical calculation is more valuable, with the aid of which we may establish that SETI I., father of RAMESSES the great, lived about 1500 B. C.—[say 15th century B. C.]; and hence that the XVIIth dynasty began to reign towards the eighteenth century B. C. Nevertheless, as the Vicomte de Rougé, (whose authority we follow in preference to other Egyptologists, since he expresses himself most cautiously in dealing with chronological figures, and avoids hypotheses) says, "it would not be astonishing if we should be here mistaken to the extent of one or two centuries, inasmuch as the historical documents are vitiated, and the hieroglyphical monuments incomplete."

"Thus we have reached," continues de Rougé, "the time of the expulsion of the Shepherds, beyond whom no certain calculation is as yet possible from the monuments known. The texts do not agree how long these terrible guests occupied and ravaged Egypt, and the monuments are silent about them. However, their domination lasted for a long time, since several dynasties succeeded one another before the deliverance, and that is all we know about it. Nor are we better informed concerning the duration of the first empire, and we have no certain means for measuring the age of those pyramids which bear evidence of the grandeur of the first Egypt. Nevertheless, if we remember that the generations which built them are separated from our era, first by the eighteen centuries of the second empire, then by the very long period of the Asiatic invasion, and lastly by several dynasties of numerous powerful kings, the age of the pyramids will not lose anything of its majesty in the eyes of the historian, although he be unable to fix it with exact precision."

It is to such an early period of the history of mankind that some of the statues and reliefs of Egypt can now be traced back with certainty; and even they do not present us with the rudiments of an infantine art, but are actually specimens of the highest artistic character. Like Minerva springing forth from the head of Jupiter, a full-grown armed virgin, Art in Egypt appears, in the very earliest monuments, fully developed,—archaic in some respects, but not at all barbarous.

Through the kindness of MM. de Rougé, Mariette, Devéria, and Salzmann, and of Chev. Lepsius at Berlin, and their regard for Mr. Gliddon, we are enabled to publish a series of royal and princely effigies of the first or Old Empire, carefully copied, often photographi-

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cally, from these original statues and reliefs at the Louvre and other Museums. They are the earliest monuments of human art known to us; being portraits of the Egyptian aristocracy at a time preceding Abraham by many centuries. They enable us to form a correct idea of Egyptian art in its first phasis, before it became fettered by a traditionary hieratic type. In an ethnological respect, they give us the true features of the *original* Egyptians: and it is very remarkable that many statues and reliefs, later by more than two thousand years, bear exactly the same character; that, again, two thousand years subsequently have not changed the national type,—the Fellàh (peasant) of the present day resembling his ancestors of fifty centuries ago, viz: the builders of the pyramids, so closely, that his Nilotic pedigree never can be seriously questioned henceforward.

The character of the Egyptian race is most distinctly expressed upon its monuments throughout all the phases of its history; and these sculptures of the IVth dynasty differ from those of later ages merely in details, not in spirit. Ernest Renan, the great Shemitic philologue, describes that character in the following words:

"The earliest [Cushite and Hamitic] civilizations stamped with a character peculiarly materialistic; the religious and poetical instincts little developed; the artistical feeling rather weak; but the sentiment of elegance very refined; a great aptitude for handicraft, and for mathematical and astronomical sciences; literature practically exact, but without idealism; the mind positive, bent on business, welfare, and the pleasures; neither public spirit nor political life; on the contrary, a most elaborate civil administration, such as European nations never became acquainted with, until the Roman epoch, and in our modern times." [47]

The Egyptians were eminently a practical people, of so little imagination, that in religion they conceived no heroic mythology. Whilst their gods were personified abstractions, all of them, with the only exception of the Osirian group, stand without life or history. In literature the Egyptians never rose above dry historical annals, religious hymns, proverbial precepts, poetical panegyrics, and liturgical compositions. Epic and dramatic poetry was feeble,[48] romance

[47] *Histoire et Système comparé des Langues Sémitiques*, Paris, 1855; Ie. partie, p. 474.

[48] The publication of M. DE ROUGÉ's critical translation of the *Sallier Papyrus*, containing the poetic recital of the Wars of Ramses, 14th century, B. C., against the Asiatic *Sheta*, or *Kheta* (recently read to the Imperial Institute), will prove that the metrical style of these Egyptian canticles frequently resembles Hebrew psalmody. Meanwhile, see some brief specimens of hieroglyphical poetry in BIRCH, *Crystal Palace Catalogue, Egypt*, 1856; pp. 266–8.

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simple,[49] philosophical speculation tame,[50] whilst critical history seems to have been unknown to them. Induction teaches us that the *art* of such a race must be analogous; truthful, but narrow; practical, but of no high pretensions; and indeed we find, upon close observation, that it displays very little variety in its forms; but within its narrow range it is distinguished, however, by the utmost fidelity and truthfulness. Ideal *heroic* types are entirely foreign to Egyptian art; we find scarcely any scenes purely *mythological*, in the abstract sense of the term (that is, as admired in Hellenic and Etruscan art), among their numerous reliefs or paintings; the representations of godhead and subordinate divinities being always brought into connexion with sacrifices and oblations, which almost seem to have been the only object of the nation's religion. The king, his pomp, processions, and battles, and the individual life, daily occupations, sports and pastimes of the Egyptians, remain the favourite subjects of the artists who, for more than two thousand years of routine, constantly returned to that source, without ever exhausting it, always marking their composition with the stamp of truth, and preserving the greatest regard for individuality. Accordingly, the statues, whenever they represent men, and not gods, are portraits intended to give the real, and not the embellished and idealized features of the *men* represented. But, whilst we meet with the greatest variety in respect to the faces, the posture of the statues remains altogether stereotyped during all the times of Egyptian history.

Statuary had, in the valley of the Nile, very few forms of expression; about six or seven, which were repeated over and over again, all of them of the most rigid symmetry, without any movement. No passion ever enlivened the earnest features, no emotion of the soul disturbed the decent composure and archaic dignity imparted by the Egyptian sculptor. "No warrior was sculptured in the various attitudes of attack and defence; no wrestler, no discobolus, no pugilist exhibited the grace, the vigour, the muscular action of a man; nor

[49] As a sample, see DE ROUGÉ's French rendering of a hieratic papyrus which presents sundry curious analogies with the story of Joseph. — *Revue Archéologique*, 1852; vol. ix., pp. 385–97.

[50] To judge, that is, by the "Book of the Dead," (LEPSIUS, *Todtenbuch der Ægypter nach dem Hieroglyphischen Papyrus in Turin*, Leipzig, 4to, 1842) or as BRUGSCH (*Saï-an-Sinsin, sive Liber Metempsychosis veterum Ægyptiorum*, Berlin, 4to, 1851, p. 42) restores Champollion's name for it, the "Funereal Ritual," — wherein, amid the recondite puerilities of a celestial *lodge*, with its ordeals, quaint pass-words, and ministering demons, it is evident that an Egyptian's idea of a "Future State" in Heaven never soared above aspirations for a repetition of his terrestrial life in Egypt itself! Be it noted here that M. de Rougé has found the chapter "On life after death" on a monument of the XIIth dynasty; thereby establishing the existence of large portions of this *Ritual* in ante-Abrahamic days.

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were the beauties, the feeling, and the elegance of female forms displayed in stone: all was made to conform to the same invariable model, which confined the human figure to a few conventional postures."[51]

Of groups they knew only two, both of them most characteristic. Sometimes it is the husband with the wife, seated on the same chair on terms of perfect equality, holding one another's hand, or putting their arms round one another's waist, in sign of matrimonial happiness, evidently founded upon monogamy and perfect social equality between the sexes.[52] Sometimes again it is the husband, in his character of the head of the family, quietly sitting on a chair, accompanied by the standing figures of his wife and children, sculptured as accessories, and considerably smaller in size than the husband and father.

As to the single statues, they are either standing erect, the arms hanging down to the thighs in a straight line (though occasionally the right hand holding a sceptre, whip, or other tool, is raised to the chest), the left foot always stepping forward; or the figure is seated, with the hands resting on the knees, or held across the breast. Another attitude is that of a person kneeling on the ground, and holding the shrine of some deity before him. The representation of a man squatting on the ground and resting his arms upon his knees, which are drawn up to his chin, is the most clumsy of the Egyptian forms, if the most natural posture to the race, being perpetuated to this day by the Fellaheen when resting themselves; whilst the statues in a crouching position are the most graceful for their natural *naïveté*. If we add to these few varieties of positions the stone coffins, imitating the mummy lying on its back, and swaddled in its clothes, we have exhausted all the forms of Egyptian statuary. Specimens of these six attitudes, all of them equally rigid and symmetrical, being found among the earliest monuments of the empire from the IVth to the XIIIth dynasty, it cannot be doubted that Egyptian statuary added no new form to their primitive sculptural types during the long lapse of nearly thirty centuries, which wrought certainly some variety into the details, but not upon the forms. In fact, the statue

[51] Sir J. Gardner Wilkinson, *Popular account of the ancient Egyptians*, II. 272. There are some partial exceptions to the rigor of this rule, such as the "Wrestlers at Benihassan," the "Musicians at Tel-el-amarna," "Ramesses playing chess at Medeenct-Haboo," the same monarch "spearing the Scythian chief" at Aboosimbel, an occasional group in grand battle-tableaux, various scenes of negro captives, &c.; but they appear to be accidental, or perhaps instinctive, efforts of individual artists to escape from the conventional trammels prescribed by theocratic art. In the folio plates of Rosellini, Champollion, Cailleaud, Prisse, and Lepsius — especially the last two authorities — such instances may be found.

[52] *Idem*, II. 224.

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was in Egypt never emancipated from architecture.[53] It was sculptured for a certain and determinate place, always in connection with a temple, palace, or sepulchre, of which it became a subservient ornamental portion, an architectural member as it were, like the pair of obelisks placed ever in front of the propyleia, or the columns supporting a pronaos. This poverty of forms, and their constantly recurring monotony, make the inspection of large Egyptian collections as tiresome to the great bulk of visitors, as the review of a Russian regiment is to the civilian; one figure resembles the other, and only the closer investigation of an experienced eye descries a difference of style and individuality.

The bas-reliefs were not, for the Egyptians, so much independent works of art, as architectural ornaments, and means for conveying knowledge, answering often the purpose of a kind of vignettes or illustrations of hieroglyphical inscriptions. They record always some defined, historical, religious, or domestic scene, without pretension to any allegorical double-meaning, or esoteric symbolism. Beauty remained with their hierogrammatic artists less important than distinctness, the correctness of drawing being sacrificed to conventionalisms of hieratic style; but, on the other hand, a general truthfulness of the representation was peculiarly aimed at. The unnatural mannerism of the Egyptian bas-relief manifests itself principally in the too high position of the ear,[54] and in representing the eye and chest as in front view, whilst the head and lower part of the body are drawn in profile.[55] Nevertheless, this constant mannerism and many occasional incorrectnesses are blended with the most minute appreciation of individual and national character. It is impossible not at once to recognize the portraits of the kings upon their different monuments; and we alight on reliefs where some of the figures are so carelessly drawn as to present two right or two left hands to the spectator, yet combined with such characteristic effigies of negroes, of Shemites, of Assyrians, of Nubians, &c., that they remain superior to the representations of human races by the Greeks and Romans. This general truthfulness applies to Egyptian art from the very first dawn of history, throughout all the subsequent periods, down to the time of the Roman conquest. But whilst the principal features of art remained stationary, the eye of the art-student finds many changes in details, and these constitute the history of Egyptian art.

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[53] Cf. WILKINSON, *Architecture of the Ancient Egyptians*, London, 1853.

[54] MORTON, *Cran. Ægypt.*, Philad., 1844, pp. 26–7; and "inedited MSS." in *Types of Mankind*, p. 318:—PRUNER, *Die Ueberbleibsel der Altägyptishchen Menschenraçe*, München, 1846, p. 6.

[55] For a ludicrous example, see the "37 Prisoners at Benihassan," in ROSELLINI, M. R. XXVI—VIII; of the remote age of the XIIth dynasty.

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The proportions of the statues in the time of the Old Empire [say from the 35th century B. C., down to the 20th,[56]] are short and heavy; the figures look, therefore, somewhat awkward; but, on the whole, they are conceived with considerable feeling of truth, and executed with the endeavour to obtain anatomical correctness. The principal forms of the body, and even its details, the skull, the muscles of the chest and of the knees, are nearly always correctly sculptured in close but not servile imitation of nature. The shape of the eye is not yet disfigured by a conventional frame, nor is the ear put too high; but the fingers and toes evidently offered the greatest difficulties to the primeval Egyptian artists. They commonly failed to form them correctly; the simplicity and exactitude displayed in sculpturing the face and body scarcely ever extended to the hands and feet, which are blunt and awkward.

The earliest of all the statues now extant in the world, as far as we know, is the effigy of KAM-TEN, or HOMTEN, a "royal kinsman" of the IIId dynasty, found in his tomb at Abooseer, and now in the Berlin Museum. The following wood-cut [7] is a faithful reduction of this statue's head, characterized by a good-natured expression, without any mannerism or conventional type about the features; the eye is correctly, and the mouth naturally drawn; not yet twisted into the stereotyped unmeaning smile of the later periods.

Fig. 7.

KAM-TEN, *Statue*

It is interesting to compare the head of this statue with the low-relief portrait [8] of the same prince from the same tomb, in order to perceive the difference between the artistic conception of a statue and of a relief in Egypt. The relief portrait is evi-

[56] As previously stated, in the present impossibility of attaining, for times anterior to the XVIIth dynasty, any precise chronology, we shall make use herein of the vague term *centuries*, when treating on events anterior to the age of Solomon, taken at B. C. 1000. The numerical system of Chev. LEPSIUS furnishes the scale preferred by us, which is defined in *Types of Mankind*, p. 689. His arrangement of Egyptian dynasties may be consulted in *Briefe aus Ægypten, Æthiopien und der Halbinsel des Sinai*, Berlin, 1852, pp. 364–9; of which the elegant English translation by the Misses HORNER (Bohn's Library, 1853) contains the later emendations of this learned Egyptologist.

[57] Communicated in *lithograph* by Chev. Lepsius to Mr. Gliddon; together with our subsequent Nos., 8, 9, 10, and other heads that space precludes us from inserting; but for the important use of all which, in these iconographic and ethnological studies, we beg to tender to the Chevalier our joint acknowledgments.

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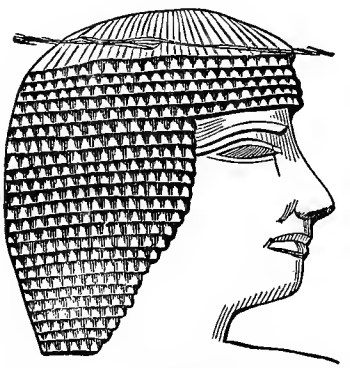
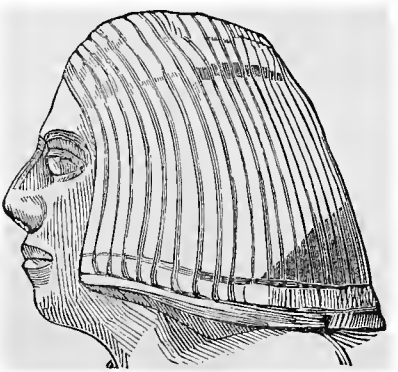
dently more conventional. It is not a free artistical imitation of nature, the hand of the sculptor being fettered by traditionary rules. This conventionalism of the reliefs not being applicable to statues, is an evidence that sculpture in Egypt began with the relief, which again grew out of the simple outline. The principal difference between the two portraits is, that the eye is not fore-shortened in the relief, whilst the lips are too long; still, the peculiar raising of the angles of the mouth is not conventional in the first period of Egyptian art.

Fig. 8.



KAM-TEN, *Relief.*

Fig. 9.



BET-MES, *Statue.*

The red granite statue of prince BET-MES, [9] in the British Museum, (No. 60, A,) an officer of State, "king's relation," of the same period, displays a similar artistical character; clumsy proportions, but a close observation of nature, without any tendency to embellish or to idealize. It is, what it was intended to be, a faithful portrait. The homely relief-head [10] of another "royal relative," EY-MERI, of the IVth dynasty, from the Berlin Museum, possesses such a striking individuality of character that, in spite of the conventional representation of the eye, we cannot doubt for a moment its resemblance to this royal kinsman of king Cheops-SUPHIS, whose tomb is the great pyramid of Geezeh.

Fig. 10.

EY-MERI, *Relief.*

We now have the pleasure of submitting to the reader, in a series of lithographic plates, portraits as yet unique in the history of Art, which for antiquity, interest, beauty, and rareness, surpass everything hitherto known.

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Ancient Scribe (Ante, Pl. I.) - Profile.

M. Salzmann photog. Paris

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Particulars concerning the unrivalled and still-inedited discoveries, during the years 1851–54 at Memphis, of M. AUGUSTE MARIETTE, now one of the *Conservateurs* of the Louvre Museum, are supplied by our collaborator Mr. Gliddon [*Chapter* V. *infra*]. With that frank liberality which is so honorable to *scientific* men, MM. DE ROUGÉ, MARIETTE, and DEVÉRIA, not merely permitted Mrs. Gliddon to copy whatever, in that gorgeous Museum, might become available to the present work; but the last-named Egyptologist kindly presented her husband with the *photographic* originals (taken by M. Devéria himself from these scarcely-unpacked statues,—May, 1855,) from which our copies have been transferred directly to the stone, without alteration in any perceptible respect. In these complaisant facilities, the very distinguished photographer of Jerusalem, M. AUG. SALZMANN, also volunteered his skilful aid; and we reproduce [see *Pl.* II.] the *fac-simile* profile of the "Scribe," due to his accurate instrument. Not to be outdone in generosity towards their transatlantic colleague, CHEV. LEPSIUS, who had just been surveying these "nouveautés archéologiques" at the Louvre, subsequently forwarded from Berlin, to Mr. Gliddon in London, a complete series of archaic Egyptian portraits, drawn on stone also from photographs, which included likewise copies of those already obtained from M. Mariette's Memphite collection. Such are some of those irrequitable favors through which we are enabled to be the first in laying documents so precious before fellow-students of ethnology. Their powerful bearing upon the question of *permanence of type* in Egypt during 5000 years,—upon that of the effects of amalgamation among distinct types, in elucidation of the physiological law that the *autochthonous majority invariably, in time, absorbs and effaces the foreign minority;* and as supplying long-deficient criteria whereby to analyze and compare the ethnic elements of less historical nations than the Egyptians,—these interesting points fall especially within the province of Dr. Nott; and he has discussed them in his *Prefatory Remarks* to this volume.

With these brief indications, we proceed to test our theory of the principles that characterize the Art of different nationalities; calling to mind, with regard to these most antique specimens of all statuary, that, until their arrival at Paris in the autumn of 1854, it had scarcely been suspected that the primordial Egyptians attained the art of making statues "*ronde-bosse*" much before the XIIth dynasty [about 2200 B. C.]. The authors of "Types of Mankind," in their wide investigation of iconographic data, were unable to produce any Nilotic sculpture more ancient than *bas-reliefs*.[58] Exceptional doubts,

[58] *Op. cit.*, pp. 241–3, Pl. I.—IV.

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to this current opinion on the relative modernness of Egyptian statuary, were then entertained chiefly by Mr. Birch—who had already classified, as appertaining to the Old Empire, various archaic fragments in the British Museum,—by Chev. Lepsius, when publishing a few mutilated statues among the early dynasties of the *Denkmäler*,—and by the Vicomte de Rougé, who wrote in 1852;[59] "Trois statues de la galerie du Louvre (nos. 36, 37, 38) présentent un excellent spécimen de la sculpture de ces premiers âges. Dans ces morceaux, *uniques jusqu'ici* et par conséquent inestimables, le type des hommes a quelque chose de plus trapu et de plus rude; la pose est d'une grande simplicity; quelques parties rendent la nature avec vérité; mais l'on sent déjà qu'une loi hiératique a réglé les attitudes et va ravir aux artistes une partie précieuse de leur liberté."

It must, therefore, be gratifying to the authors of the precursory volume to the present, to find their doctrine, "that the primitive Egyptians were nothing more nor less than—EGYPTIANS,"[60] so incontestably confirmed by a group of statues which did not reach Paris for six months after the publication of their researches; and we may now rejoice with those archæologists, whose acumen had already foreshadowed the discovery of beautiful statuary belonging to the early days of the pyramids, that, henceforward, the series of Egyptian art continues, in an unbroken chain, from the 35th century B. C. down to long after the Christian era.

Prince SEPA [*Plate* III., *fig.* 1], and his wife NAS, or NESA, [*fig.* 2], are the first we shall examine among these statues of the Louvre; from Lepsius's copy. They are likewise somewhat clumsy as regards the general proportions; but parts of the body, for instance the knees, are sculptured with an anatomical correctness superior to that of the monuments of the great Ramses. The statue of SHEMKA [*Plate* IV.] "superintendent of the royal domains" (IVth or VIth dynasty), seated between the small-sized standing figures of princess ATA, his wife, and their son KNEM, is an excellent illustration of incipient elongation together with greater elegance of the artistical canon. In spite of the awkward composition, it attracts our attention powerfully, since the face teems with life and individuality; whilst the forms are correct in the main, but lamentably stumpy and clumsy about the hands and feet. [See *Plate* V, *fig.* 2.]

The head of a *Priest*, PHER-NEFER, or PAHOO-ER-NEFER [*Plate* V., *fig.* 1], "Superintendent of the timber-cutters and of agriculture," found together with SHEMKA in the same sepulchre, is uncommonly

[59] *Notice des Monuments exposés dans la galerie d'antiquités égyptiennes (Salle du rez-de-chaussée), au Musée du Louvre*, Paris, 1852, pp. 7–8.

[60] *Types of Mankind*, p. 245.

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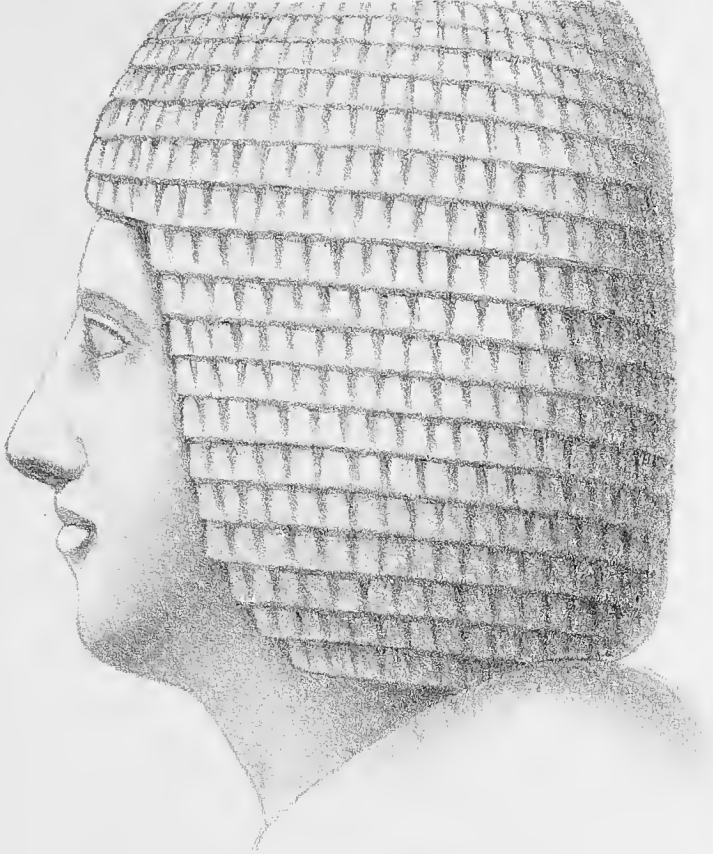

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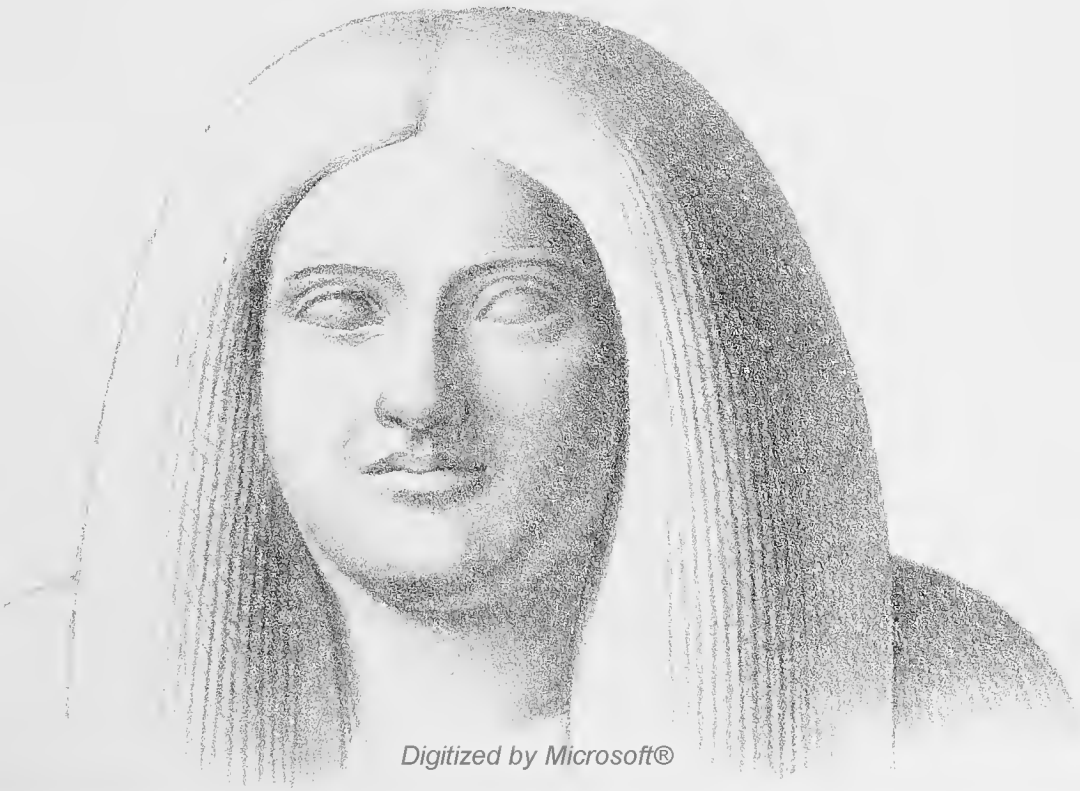
2.



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well moulded; but the crouching statuette of a "Scribe,"—celebrated at the Louvre as "le petit bonhomme"—is the crowning masterpiece of primitive art revealed through Mariette's exhumations. It is from this venerable tomb of the Vth dynasty, 5000 years old, which the later constructors, (above 2000 years ago,) of the ancient Avenue of Sphinxes leading to the Memphite Serapeum had cut through and walled-up again. The material is white limestone, colored red; which even to its trifling abrasions is reproduced as a most appropriate frontispiece to this work [*Plate* I.]. The *profile* view [*Plate* II., *fig.* 1] exhibits the excellence of its workmanship, no less than the purest type of an ancient Egyptian. Beneath it [*fig.* 2], Mr. Gliddon has repeated the same head, with the sole addition of the moustache and short beard, and the mutation of the head-dress into the quilted-cotton skull-cap of the modern peasantry; and thus we behold the perfect preservation of a typical form of man through 5000 years of time, in the familiar effigy of a living *Fellàh!*

"We are not reduced to mere conjectures," comments the Conservator of the Imperial Louvre Museum, "concerning the figure of the crouching Scribe, placed in the middle of the hall (*Salle civile.*)[61] It was found in the tomb of SKHEM-KA with the figures collected together in the hall of the most ancient monuments (*Salle des Monuments.*) It appertains, therefore, to the Vth or the VIth dynasty. The figure, so to say, is speaking: this look which amazes was obtained by a very ingenious combination. In a piece of opaque white quartz is encrusted a pupil of very transparent rock-crystal, in the centre of which is planted a little metallic ball. The whole eye is fixed in a bronze leaf which answers for both eyelids. The sand had very happily preserved the color of all the figures in this tomb. The movement of the knees and the slope of the loins are above all remarkable for their correctness. all the traits of the face are strongly stamped with individuality; it is evident that this statuette was a portrait."

These, with the beautiful head of another Egyptian, long in the Louvre, but unclassed until 1854, [*Plate* VI.][62] of perhaps the same period, exceed in artistic interest all the monuments of the Nile-valley; and the speaking expression of their countenances invariably catches the eye of every visitor of the Egyptian Gallery at Paris. Not that they approach ideal sculptured beauty, such as we are accustomed to meet with in Greek statuary; on the contrary, there is not a spark of ideality in either of the two representations; their

[61] DE ROUGÉ, *Notice Sommaire des Monumens égyptiens exposés dans les galeries du Musée du Louvre*, Paris, 18mo., 1855, p. 66. One further observation, instead of being any way embellished in our *Plate* I., our copy, obtained through the heliotype, is defective in the legs; which, projecting in advance of the upper part of the body, are heavier and less proportionate than in the stone original; but possessing no measurements for their reduction, we have not felt at liberty to deviate from M. Devéria's photograph.

[62] The following is M. DEVÉRIA'S note on this gem of antique art:—"Buste provenant d'une statue de l'ancien art memphite, contemporaine des pyramides. Pierre calcaire, peinture rouge, grandeur naturelle." Paris, Louvre Museum, 30th May, 1855.

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type is neither grand nor handsome; but they are truthful and most lively portraits of *Egyptians*, stamped with such a striking individuality, as to leave the impression that they must have resembled their originals, notwithstanding that the imitation of nature is with them not at all painfully scrupulous, and rather evinces considerable artistical tact in the execution. The correctness of the position of the ear in these early Egyptian monuments is peculiarly interesting, since it confirms the observation of Dr. Morton, before alluded to, that its misplacement on the later and more ordinary monuments is not founded upon strict imitation of nature, but that it belongs altogether to conventional hieratic mannerism.

The relief portrait of king MEN-KA-HER, of the Vth dynasty (*Plate* VII.)—[say, about 30 centuries B. C.] certainly deserves a place of honor as the earliest royal effigy in existence, not mutilated in its features.[63] It was found, 1851–4, by M. Mariette, on the lower side of a square calcareous stone employed by later hands in a construction of the XIXth Dynasty [14th century B. C.] in the Serapeium of Memphis. The stone belonged originally to a different monument, probably destroyed by the Hyksos, the ruins of which were thus adopted for building materials by a posterior and irreverent age,—just as Mehemet Ali and his family have destroyed Pharaonic and Ptolemaic temples for the construction of barracks and factories, out of stones inscribed with the signs of a much higher civilization than that of Egypt's present rulers.[64] It is remarkable that the ear of MEN-KA-HER is placed too high on this relief, whereas on the relief of the "royal daughter" HETA (IVth Dynasty), lithographed by Lepsius for the *Denkmäler*, it is entirely correct.

The greatest pains have been taken to present a correct *fac-simile* of this ante-Abrahamic Pharaoh's beautiful face. The original was stamped, drawn, and colored at the Louvre, by Mrs. Gliddon; and the shade of paper on which it is lithographed, is intended to resemble that of the stone, which has been divested of its pristine colors.

Under the XIIth Dynasty [B. C. 22 centuries] the expression of statues becomes peculiarly refined, and the short and clumsy proportions are more elongated. "It seems," says De Rougé,[65] "that in the course of centuries the race has become thinner and taller, under the influence of climate,"—or perhaps by the infusion of foreign

[63] Those of SHUPHO and others at Wadee Magàra are rather effigies than likenesses, and are too abraded to be relied on.

[64] GLIDDON, *Appeal to the antiquaries of Europe on the destruction of the monuments of Egypt*, London, 1841:—PRISSE D'AVENNES, *Collectione d'Antiquités égyptiennes au Kaire*, Revue Archéologique, 15 Mars, 1846.

[65] *Notice Som.*, p. 24:—ID., *Rapport sur les Coll. égyptiennes en Europe*, 1851, p 14

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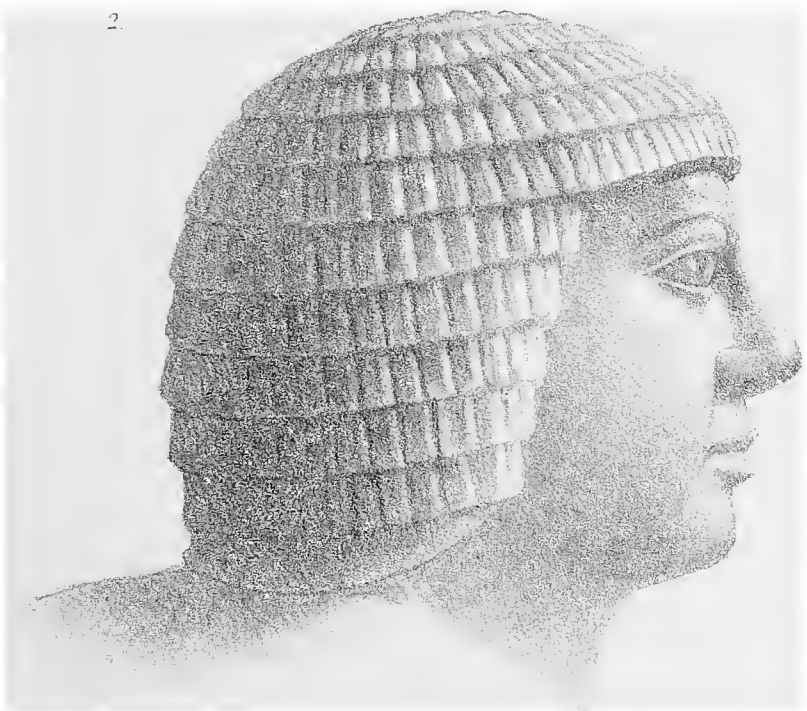
Pahou-er-nowre.

2.



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Shemitic blood, suggests the ethnologist. I do not dare to decide this question, but I simply state the fact, that not only in Egypt but likewise in Greece, and later again at Constantinople, the archaic representations were positively shorter; and that each successive canon of art extended the legs as well as all the lower parts of the body in relation to the upper ones. Thus the Selinuntian reliefs are shorter than the statues of Ægina; which again are shorter than the canon of Polycletes; whilst the canon of Lysippus is still longer.[66] The barbarous figures upon the triumphal arch of Constantine are so short that they resemble dwarfs; at the same time that the human body under Justinian and his successors becomes, on the reliefs, by full one-eighth too long.

Contemporaneously with the more elegant proportions of the statues of the XIIth Dynasty, the column makes its appearance in Egyptian architecture. In the hypogea of Beni-Hassan we behold even the prototype of the fluted Doric column.[67] The bas-reliefs of this Dynasty are more beautifully and delicately carved than they ever were at other dates in Egypt; the movement of the figures is so truthful, and, in spite of the conventional formation of the eye, chest, and ear, so artistically conceived, that we are led to expect much more from the progressive development of Egyptian art than it really accomplished. The glorious dawn was not followed by the bright day it promised. Art culminated under SESORTASEN I. [22 cent. B. C.], the splendid *leg* of whose granite statue is at Berlin. It was delicate and refined, but the feeling of ideal beauty remained unknown to the Egyptian race, and the freedom of movement in the reliefs was never transferred to the statues, nor did the relief become emancipated from the thraldom of hieratic conventionalism in the details of the human body. The development of art ever continued to be imperfect and unfinished in the valley of the Nile.

There are but very few statues of this period (XIIth Dynasty) extant in the collections of Europe; monuments closely preceding the invasion of the Hyksos, and therefore more exposed to their ravages, belong to the rarest specimens of Egyptian art. The (inedited) head of prince AMENEMHA, [11] governor of the west of Egypt, in the time of the XIIth Dynasty, copied from his dark-basalt statue in the British Museum, and the portrait of king NEFER-HETEP I., of the XIIIth Dynasty [*Plate* VIII, *fig.* 2, from the *Denkmäler*], may give those interested in these minute comparisons an idea of the beauty and delicacy of that period, whilst with AMENEMHA even the

[66] See principally K. O. MULLER, *Handbuch der Archæologie*, § 92–4, 96, 99, and 322; and PLINY, *Histor. Nat.*, XXXIV. 19, 206.

[67] LEPSIUS, *Colonnes-piliers en Égypte*, Annal. de l'Inst. Archéol., Rome, 1838.

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toes are artistically represented. King NEFER-HETEP's ear, however, is placed too high, the earliest instance of such an abnormity in an Egyptian statue.

Fig. 11.

AMENEMHA—*Statue.*

The invasion of the nomad Hyksos, between the XIIIth and XVIIth Dynasties, whether Arab and Phœnician Shemites, as commonly believed, or perhaps Turanians (Scythians, Turkomans), as we might guess from the fact that they were a people of horsemen,[68] interrupted the development of Egyptian art and civilization for several centuries. Their reign is marked by destruction and ruins, not by works of art or of public utility; still their irruption benefited the valley of the Nile through their introduction of the most important of all auxiliary domesticated animals, the horse, unknown to primeval Arabia, and to Egypt previously to the Hyksos, but appearing on the reliefs of the Dynasty which overcame the invaders.

The XVIIth Dynasty of AAHMES[69] and his successors snapped the foreign yoke asunder, and expelled the nomades. Art revived again. The restoration in public life was as thorough-going as that of France under the Bourbons; the reign of the foreign intruders was altogether ignored, and scarcely mentioned in the records but for its overthrow. In their canons[70] of art, this New Empire tried to imitate the style of the XIIth and XIIIth Dynasty; but the spirit which manifests itself on the monuments of the XVIIth Dynasty is different from that of the earlier periods. Instead of the refined elegance which reigned under the SESORTASENS, we encounter more grandeur in the New Empire,—somewhat incorrect and conventional, and less attentive to nature than in the earlier monuments, but always impressive. During the victorious period between THUTMOSIS I. and BEXEN-ATEN,

[68] PICKERING, *The Races of Men*, vol. ix. of the *U. S. Explor. Exped.*, 1848. "On the *introduced* plants and animals of Egypt:"—GLIDDON, *Otia Ægyptiaca*, London, 1849, p. 50.

[69] The *Hyk-sos* are beginning, at last, to emerge from historical darkness. "La lecture du papyrus No. 1 de la collection Sallier a révélé dernièrement à M. de Rougé une des mentions longtemps cherchées. Le papyrus s'est trouvé être un fragment d'une histoire de la guerre entreprise par le roi de la Thébaïde contre le roi pasteur Apapi. Cette guerre se termina sous Amosis (AAHMES), le monarque suivant, par l'expulsion des étrangers." (ALFRED MAURY, *Revue des Deux Mondes*, Sept. 1855, p. 1063).

[70] I use the term "canon," in the sense adopted by LEPSIUS (*Auswahl*, Leipzig, fol. 1840—Plate "Canon der Ægyptischen Proportionen"), and since so well classified into three epochas of artistic variation in the *Denkmäler*;—by BIRCH (*Gallery of Antiquities selected from the British Museum*, Part II., Pl. 33, p. 81;)—and by BONOMI, on the canon of Vitruvius Pollio (*The Proportions of the Human Figure*, London, 8vo., 1856).

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Men-ka-her. V^th Dynasty.

(Louvre Museum.)

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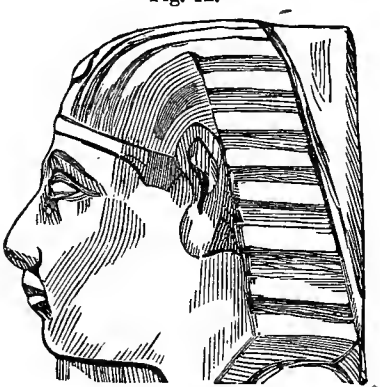
recently identified as Manetho's ACHENCHERES, it nearly rose to beauty, attaining its culmination under the reign of AMENOPHIS the III. Though the eye is enclosed in a peculiar conventional frame, while the lips invariably smile, the muscles of the chest, belly, and arms, are less distinctly marked, and the knees are incorrect; yet, notwithstanding these defects, the individuality of the monarchs and princes whose statues adorn our Museums is most expressively rendered, particularly among some of the collection at Turin. Colossuses begin to be sculptured; and the idea of grandeur which pervades these monuments seeks an expression in external size.

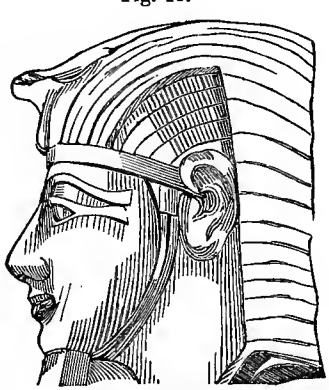
The following portraits in wood-cut, reduced from Lepsius's beautiful lithographs, sufficiently illustrate the style of the XVIIth Dyn.

Fig. 12.



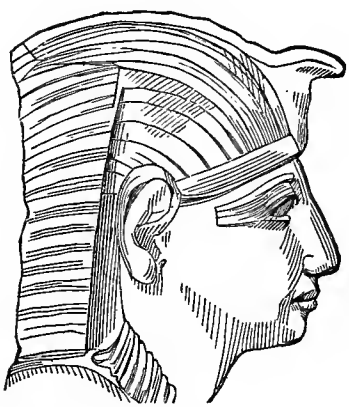
AMUNOPH I.

Fig. 13.



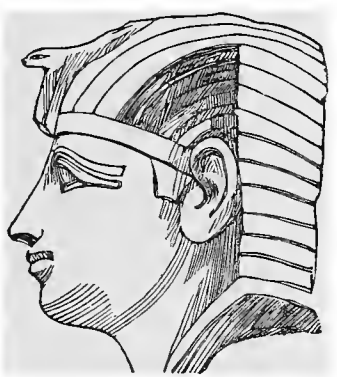
AMUNOPH II.

Fig. 14.



THOTMES I.

Fig. 15.



THOTMES III.

which, in the Chevalier's chronology, comprises the epoch of Abraham. I regret, however, that the engraver, unskilled in Egyptian

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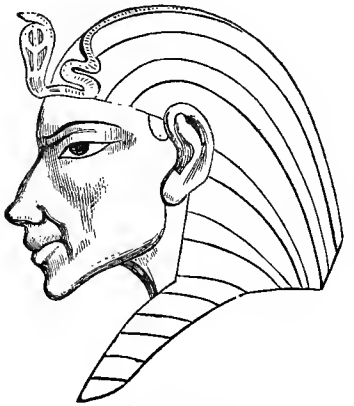
style, has failed to reproduce the harmonious delicacy of the originals. They can be consulted in the *Denkmäler*.[71]

Besides these four royal heads none is more interesting for the ethnologist than a fifth (*Plate* VIII, *fig.* 1], not only for the beautiful carving of the expressive features of the Queen-mother of that Dynasty, but peculiarly because it proves with how little foundation NOFRE-ARI has been taken for a negro princess! She was always recorded with great veneration by her descendants, and often portrayed by them in company with king AAHMES, the founder of the Dynasty and liberator of Egypt, and in many of those reliefs her face is colored black,[72] owing to some reason unknown to us; her features, however, as well in reliefs as in statues, belong to that "Caucasian" class termed Shemitic. In the reign of the heretic BEXEN-ATEN, *Akhenaten*, the monotheistic worshipper of the sun's disk—whom some imagine to be Joseph's Pharaoh. — art is still more individual and characteristic,—so much so, as to border on caricature and ugliness; for instance, in the portrait of the king himself;[73] [16] of whom a most beautiful statuette adorns the *Salle historique du Louvre*.

Fig. 16.



AKHEN-ATEN.

[71] Also, from ROSELLINI's copies, in *Types of Mankind*, pp. 145–51.

[72] Thus for instance in OSBURN, *Monumental history of Egypt*, II., Frontispiece—reduced from LEPSIUS, *Denkmäler aus Ægypten*, Abth. III., Bl. 1.

[Compare her likeness in *Types of Mankind*, p. 134, fig. 33; and p. 145, fig. 45; with note 123, p. 718. NESTOR L'HÔTE has somewhere conjectured, that, when this sacred queen is painted black, she appears after death in the character of "Isis funèbre"—figurative of her nether world espousal by the black Osiris, lord of Hades; and this idea, of a "black Isis," was perpetuated, until last century, through our European middle-ages, in the many basaltic statues of that goddess, represented suckling the new-born Horus, imported from Egypt at great cost, which superstition consecrated in many Continental churches as images of the *black* Virgin and her Son. Cf. MAURY's *Légendes picuses du Moyen-Âge*, Paris, 1843, p. 38, note 2: and MILLIN.—G. R. G.]

[73] *Types of Mankind*, p. 147, fig. 55; pp. 170–2; and notes Nos. 151, 193–7.

[More recent researches, here again, are removing some of the unaccountable embarrassments which the strange personage, in his name, epoch, and physiological peculiarities, has occasioned, for 25 years (L'HÔTE, *Lettres écrites d'Égypte en* 1838 *et* 1839, Paris, 1840; pp. 53–78), among Egyptologists. It now seems certain, 1st, (BRUGSCH, *Reiseberichte*, p. 188: —MAURY, *Revue des Deux Mondes*, Sept., 1855, p. 1068:—MARIETTE, *Bulletin Archéologique de l'Athenæum Français*, June, 1855, pp. 56–57), that, instead of *Bexen-aten*, his name should be read *Akhenaten;* through which melioration he becomes assimilated to the *two* Ακενχέρης of Manetho's lists; — and 2d, possible, that his "anomalous features," as NOTT

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Under the long reign of the great conqueror Ramesses II., the Sesostris of the Greeks, as well as under his successor MENEPHTAH, II. (possibly, as Lepsius considers, the Pharaoh of the Exodus), there is a considerable falling off from the accomplished forms of the preceding periods. Egyptian artists now indulge merely in external grandeur, whilst expression and individuality are neglected. The taste for colossal statuary of enormous size, which always announces an inroad of barbarism into art, prevails in the time of the great Conqueror. The artist no longer aims to create satisfaction, but only to excite wonder in the heart of a spectator. The overcoming of mechanical difficulties becomes his highest goal;—a certain sign that engineer's work is more appreciated by the people than artistic merit. It is remarkable that the deterioration of style, which thenceforward continues for many centuries, appears just under the reign of RAMESSES II., who brought Egypt into close contact with Asiatic nations through matrimonial alliances[74] and by conquest: in confirmation of which Asiatic infiltration, we perceive that, about his time, several words, avowedly Shemitic, were introduced into the body of the Egyptian language,[75] and Asiatic divinities were imported into the Egyptian pantheon; thus for instance ATESH, or *Anatha*, the goddess of love, adored on the banks of the Euphrates, had temples dedicated to her at Thebes;[76] *Baal* entered into Nilotic theognosy; *Astarte* soon after had a Phœnician temple at Memphis; the goddess *Kioun-t*, with her companion *Renpo*, appears on steles.[77] But this intercourse with foreign nations, and pharaonic domination over a portion of Asia, exercised no good influence

and I designated them, in *Types*, proceed from emasculation; otherwise, that, at some period of his adult age, he became (not voluntarily like ORIGEN, who was imbued with *Matthew* xix. 12) an *Eunuch;* which probable circumstance would also explain the condign vengeance wreaked by him on the god Amun and its votaries, to whom he doubtless owed his treble voice. My own experiences during 28 years in the Levant entirely corroborate the view taken (*loc. cit.*) by Mariette:—

"Nous avons, de notre temps même, quelques exemples de ces alliances. Dans ce cas, les infortunés que la civilisation musulmane admet dans son sein à de si révoltantes conditions, épousent des veuves, leurs compatriotes ou leurs alliées, aux enfants desquelles ils transmettent les bénéfices des charges élevées que, malgré leur mutilation, il leur est permis de remplir. Il est probable que si Akhenaten éprouva réellement le malheur dont ses traits semblent révéler l'évidence, ce fut pendant les guerres d'Aménophis III au milieu des peuplades du Sud. L'usage de mutiler les prisonniers et les blessés est, parmi ces peuplades, aussi ancien que le monde."—G. R. G.]

[74] He married the daughter of his greatest enemy, the king of the *Khetas*, (Hittites?), Shemitic Asiatics.

[75] BIRCH, *Crystal Palace Catalogue*, p. 251.

[76] DE ROUGÉ, *Notice sommaire*, p. 16.

[77] LANCI, *Lettre à M. Prisse d'Avennes*, Paris, 1847, pp. 17–20, Pl. II.:—and PRISSE, *Continuation des Monuments de Champollion*, 1848, fol.

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on Egyptian art. It is at this period that the misplacement of the ear becomes habitual with statues. The elegant youthful RAMESSES of the Turin Museum, and the excellent colossus from the so-called Memnonium at Thebes, (Belzoni's), now in the British Museum, are nevertheless well sculptured; reminding us of the better school of design; but the colossus at Metrahenny (Memphis),[78] and principally the gigantic statues of Ibsambul,[79] [17] begin to be heavy and incorrect, remarkable only for their monstrous size. The gradual decline is marked by the position of the ear: right on the earlier statues, it is too high at Metrahenny, and resembles horns at Ibsambul.

Fig. 17.

RAMESSES II.

External grandeur, however, cannot make up for the decline of artistic feeling and want of careful finish. If we examine the monument of RAMESSES, we get involuntarily the impression that the artists of this period were always hurried on by royal command, without ever having sufficient time fully to complete their task. A sketchy roughness is always visible in the later works of RAMESSES, blended with a conventional mannerism. Art has degenerated into manufacture.

The reliefs of RAMESSES IIId (XXth dynasty), and the following Ramessides, together with the monuments of SHESHONK, and his (XXIId) dynasty, are still less significant. They look dry and dull in spite of a more minute and laborious, but spiritless and petty execution. During the Shemitic (or Assyrian) XXIId,[80] and succeeding foreign dynasties, down to that called *Æthiopian* in Manetho's and other lists, [about B. C. 972 to 695] but evidently not negro, inasmuch as the reliefs of TIRHAKA are "Caucasian" and somewhat Shemitic,[81] the infusion of foreign blood and contact with foreign art were still more detrimental to the Egyptian style. Babylonian representations

[78] BONOMI, *Transactions of R. Soc. of Literature*, London, 1845: — LEPSIUS, *Denkmäler*, Abth. III., bl., 142, *c. b.*

[79] Cf. LEPSIUS, *Op. cit.*, Abth. III., bl. 190. The best popular design of these four prodigious statues is in BARTLETT'S *Nile Boat*, 1849; the one most resembling Napoleon I. is that of ROSELLINI, M. R., pl. VI., fig. 22; reduced in the above wood-cut. Compare that in CHAMPOLLION'S folio *Monuments de l'Égypte de la Nubie.*

[80] BIRCH, *Trans. R. Soc. Lit.*, III. part I. 1848, pp. 164–70; LAYARD, *Nineveh and its Remains*, 1848; *Discoveries in the ruins of Nineveh and Babylon*, 1853; for ample corroborations:—confirmed by MARIETTE, *Op. cit., pp.* 89–96.

[81] *Types of Mankind*, figs. 69, 70, 71.

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became fashionable on articles of toilet or furniture,—for instance on combs and spoons,—but indigenous art remained lifeless; the Babylonian innovations barren and without lasting results. It is worthy of notice, that about the time of the Bubastite (probably Babylonian) XXIId dynasty, a revolution occurred likewise in hieroglyphical writing, a great number of ideographs having assigned to them a phonetic value.[82] Mariette's fresh discovery of the never-before identified cartouche of BOCCHORIS, is also noteworthy in connection with this period of Egyptian annals.[83]

With the *Saitic* kings, (XXVIth dynasty, began 675 B. C.), a national reaction sets in, again accompanied by a new development of sculpture, under PSAMETIK I. and his successors. During this period of "renaissance," every effort was made to restore the institutions and ideas of the long-buried IVth dynasty of CHEOPS. The forms remain the old ones, but the details become more charming though less grand than in the monuments of the XVIIth dynasty. The artists rectify the position of the ear, although extending it too much in the upper part; they abandon the conventional frame of the eye; they study nature in preference to the traditional *canon;* the forms of the human body become less rigid, the muscles are better rounded and more correctly drawn, and a naturalistic tendency supersedes the conventionalism of the preceding epoch of decay. Colossal statues are still sculptured, but not of such monstrous proportions as under RAMESSES; at the same time that the number of small, charming, sculptures, full of vigour and (Egyptian) grace, increases considerably. They are easily recognized by their finish and sharp precision of workmanship; the aim of the artist being neatness and elegance; as distant from the somewhat conventional grandeur of the XVIIth and XVIIIth, as from the refined delicacy of the XIIth, or the honest truthfulness of the IIId and IVth dynasties. The following inedited head, now in the Louvre, is a most excellent specimen of the style of the Saïtes. It is of a greenish basalt, and was found broken off from the rest of a full-length figure, by M. Mariette, amid some ruins of the Serapeum at Memphis, in the midst of fragments belonging to the XXVIth dynasty. He gave a plaster-cast of it (now in my cabinet) to Mr. Gliddon, from which the annexed wood-cut [18] has been drawn. No doubt as to its being a *portrait;* because the Egyptian sculptor aimed always to reproduce individuality without idealizing, and possessed both eye and hand to

[82] BIRCH, *Cryst. Pal. Catalogue*, p. 243.

[83] It is to be hoped that the munificence of France in fostering archæological discoveries will, ere long, place us in full possession of these new data.

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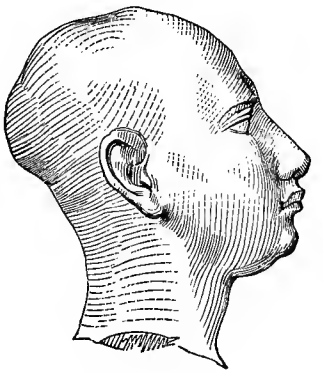
copy nature with fidelity. It corresponds in style to the superb *torso* of PSAMETIK II. found at Sais, and long in the public library at Cambridge.[84]

Fig. 18.



SAITIC HEAD.

This second revival of Egypt was not confined to sculpture. We see once more, as in the time of RAMESSES and OSORCHON, (XVIIIth and XXIId dynasties, *i. e.* in the 15th and 10th centuries B. C.) a most striking parallel between the intellectual and artistic life of the nation. The new naturalistic phase of Egyptian art coincides with an analogous, most important step in civilization, viz: the introduction of the *Demotic* alphabet, which for its phonetical character[85] or comparatively greater simplicity than either the hieratic or the hieroglyphical writing, must have favoured the diffusion of knowledge, by promoting epistolary intercourse amongst the Egyptians. It will, therefore, scarcely surprise anybody to learn that more than two thirds of the papyri in the Museums and collections of Europe, appertain to the period of Psameticus and his successors, although abundant papyric documents are extant of a far earlier epoch.[86]

Egyptian art lost its Saitic freshness, owing to the Persian conquest (B. C. 525), but the naturalistic style continued down to the reign of the Macedonian dynasty of Ptolemies. Under them Egyptian civilization came for the first time into immediate relation and uninterrupted daily contact with a foreign high-culture, although the radical difference between the Egyptian and Greek race prevented amalgamation on a larger scale. The Egyptian was too proud of his millennial civilization to condescend to learn anything from the Greek, whom he called a child in versatility, as well as in the his-

[84] YORKE AND LEAKE, *Egyptian Monuments of the British Museum*, London, 1827; p. 17, Pl. XIII.

[85] BURGSCH, *Grammatica Demotica*, 1855; together with this Savant's various publications, cited by BIRCH, *Cryst. Pal. Catalogue*, p. 209:—also *Types of Mankind*, Table of the "Theory of the order of development in human writings," pp. 630–1.

[86] They are innumerable. Among the oldest and most beautiful is PRISSE's folio Hieratic *Papyrus Égyptien*, Paris, 1849, — "sans hésitation le plus ancien manuscrit connu dans le monde entier;" containing, with others, the royal oval of SeNeWROU (or Senofre), a king of old IIId dynasty (DE ROUGÉ, *Inscription du Tombeau d'Aahmes, chef des Nautoniers*, Ie. partie, Paris, 1851, p. 76).

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torical age of his nation. "O Solon, Solon! you Greeks are always children," says Plato's priest of Sais, in the celebrated bold romance on the Atlantic Isles. Still, the Hellenic spirit could not remain wholly without influence. Alexandria assumed a cosmopolitan character, in which Greek elements predominated; and the Ptolemies, surrounded by Greek poets, artists, and philosophers, enjoyed the resplendent evening of Greek culture on the foreign soil of the Nilotic Delta. Indeed, it has been accurately observed that "Alexandria was very Greek, a little Jewish, and scarcely Egyptian at all."[87] With artistic display, unparalleled in the history of mankind, they celebrated the festivals of the Olympian gods, whilst with princely expenditure they secured all the treasures of Greek literature, as if they entertained a presentiment of the approaching doom of Hellenism. But whenever they went up the Nile, visiting Memphis, Thebes, and upper Egypt, they became again Pharaohs—"ever living, lords of diadems, watchers of Egypt, chastisers of the foreigners, golden hawks, greatest of the powerful kings of the upper and lower country, defenders of truth, beloved of truth, approved of the sun, beloved of Phtah." Their costume and titles, their sacrifices and oblations, the style of their decrees and dedications, are substantially the same as on the monuments of the ancient Pharaohs. But though it seems as if the national character and public life of Egypt itself had not undergone any material change, the Ptolemaic works of art reveal the slow action of Hellenism. Mariette's unexpected discovery, in 1850, of a *hemicycle* formed of the Greek statues of Pindar, Lycurgus, Solon, Euripides, Pythagoras, Plato, Æschylus, Homer, Aristotle, &c., in excavating the Memphite Serapeum, is a wonderful proof of the manner in which Hellenic ideas travelled with the Greeks up the Nile. Still, the elaborate attempts to attain Greek elegance and refinement, within the old traditional forms, resulted only in degradation; producing a hybrid style, inferior to any of the former phases of Egyptian art. The last known monuments creditable to native statuaries, are thus referred to by the late Letronne[88]; — "the second is a bust in rose-granite, of NECTANEBO, preserved in the British Museum (BIRCH, ARUNDALE and BONOMI, *Gallery of Antiquities*, Pl. 45, fig. 166), of very beautiful workmanship; the third is that

[87] AMPÈRE, *Voyage et Recherches en Égypte et en Nubie;* Revue des Deux Mondes, 1846, 2d article.

[88] *La civilisation égyptienne depuis l'établissement des Grecs sous Psammeticus jusqu' à la conquête d'Alexandre.* (Extrait de la Revue des Deux Mondes, 1 Fev. et 1 Avril, 1845, p. 50.) This refined specimen of art—which singularly corresponds in execution to the *Saitic* head above figured (No. 18) — may be seen on a large scale in the *Description de l'Égypte* (Antiq. V. Pl. 69, figs. 7, 8); and on a smaller in LENORMANT'S *Musée des Antiquités égyptiennes*, Paris, fol., 1840.

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mutilated but admirable statue, in green basalt, found at Sebennytus, (MILLIN, *Monuments inédits*, I. p. 383), and which decorates the 'salle du zodiaque' of the Bibliothèque royale [*nationale, publique*, or *impériale*, — as the case may be]. This *torso*, for the purity and fineness of Egyptian style, yields in nothing to the most noble remains of Egyptian sculpture: and I cannot forget that one of the skilfullest archéologues of our day, not being able to cast doubt upon the name of *Nectanebo*, which this statue bears, sustained that this name had been added, 'après-coup,' to a statue of the time of Sesostris or of Menephtha; a gratuitous supposition, rendered altogether useless through the observations contained in this memoir."

The only passable relics, of the times of the Lagidæ, now extant, are the rose-granite statues of PHILADELPHUS and ARSINOE at the Vatican; and they are poor enough.

Indigenous art degenerated, however, still more under the Roman dominion,[89] languishing under the Julian and Flavian emperors, and becoming quite rude and barbarous soon after Hadrian: — the last hieroglyphic royal ôvals, found in Egypt, belong to the Emperor Decius.[90] Indigenous Egyptian civilization and art, both connected with and founded upon hieroglyphics, expire about the same time.

Such is the brief history of Egyptian art; peculiarly remarkable for the constancy of its general character during a period of more than thirty-five centuries, no less than for its isolated and exclusively national development. The influence of foreign art and culture upon Egypt was always slight and prejudicial; whilst, with the exception of Meroë on the upper Nile — an Egyptian colony maintaining itself only so long as its original Egyptian blood remained pure,[91] — no foreign kingdom or people ever accepted the civilization, the hieroglyphics and the art of Egypt, notwithstanding that the Empire on the Nile was superior in culture to all those neighboring nations with whom the Pharaohs came into contact. Phœnicia, Assyria, Persia, and perhaps even Greece and Etruria, borrowed some forms of their art from Egypt; but these loans are, on the whole, trifling, and insufficient to stamp the art of those nations with an Egyptian character. In Assyria, as in Greece and Etruria, art developed itself nationally, and in each region may always be considered as indigenous.

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[89] GAU's folio *Antiquités de la Nubie*, DENON, and the *Great French work*, contain abundant examples of this decline.

[90] LEPSIUS, *Vorläufige Nachricht über die Expedition*, Berlin, 1849, p. 29.

[91] For proofs, — ABEKEN, *Rapport*, in *Bulletin de la Société de Géographie*, Paris, Sept., 1845, pp. 171-2, 174, 179: — LEPSIUS, *Briefe*, 1852, pp. 140-9, 204, 217-9, 239, &c.: while ocular evidence of this Ethiopian degradation of art may be obtained in the *Denkmäler*, Abth. VI. bl. 2, 4, 9, 10.

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We have selected, for illustrating our sketch of Egyptian art, statues in preference to reliefs, which are always somewhat repugnant to the taste of the public, on account of the peculiar conventional formation of the eye, drawn in front-view on profile heads. Besides, *Types of Mankind* already contains copious specimens of Egyptian royal relief-likenesses, from AAHMES, the restorer of Egypt, down to MENEPHTAH, the probable Pharaoh of the Exodus, including also the SHESHONKS (*Shishak*), SHABAKS and TIRHAKAS, so familiar to the readers of the Bible. The authority of those portraits (taken principally from Rosellini) is sufficiently established by the inscriptions which accompany them on the original sculptures; their faithfulness may easily be tested in any of the large collections of Europe, and principally in Egypt, among the monuments; for it is a remarkable fact, that wherever a relief was sunk into the rock, recording the deeds of some individual Pharaoh, whether on the pylones of the temples, along the walls of tombs, and amid palatial decorations, or chiselled upon some tablet on the remotest borders of the Empire, his features, painted or sculptured, are always the same, and may be recognized everywhere throughout Egypt. It has, therefore, often been asked, by what means Egyptian artists could attain such a uniformity at a time when no coins were as yet struck, and the art of engraving likenesses (not seals, &c.,) was unknown. It was very plausibly suggested, that an official pattern of the royal physiognomy, carved in wood, may easily have been circulated all over the valley of the Nile. The Roman emperors probably neglected the continuance of such customs, perhaps under belief that their coins might convey a sufficient idea of their features. The Egyptians, however, remain unacquainted with the portraits of their Roman rulers, whose effigies on Egyptian and lower-Nubian monuments are altogether conventional, without any attempt at portraying individuality and resemblance to the Roman Autocrats; whose very *name*, as we see at Kalabshe and at Dendera, was often unknown to natives of the Nile.[92] As a collateral confirmation of the suggestion about the circulation of regal portrait-patterns, we refer to some analogous preceedings under Queen Elizabeth, which we translate from the French of the Abbés De la Chau and Le Blond,[93] not being able to lay our hands upon the original document mentioned by them.

"The excessive sensitiveness of Queen Elizabeth about beauty," say the learned French archæologists, "gave birth to a most peculiar order in council, signed by the secretary

[92] LETRONNE, "Sur l'absence du Mot Autocrator" — *Mémoires et Documents*, Paris, 1849, pp. 1–8:—CHAMPOLLION-FIGEAC, *Fourier et Napoléon, l'Égypte et les cent jours*, Paris, 1844, pp. 63–5.

[93] *Pierres gravées du Cabinet Orleans*, II. p. 194.

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Cecil, and promulgated in 1563. All the painters and engravers were prohibited by it to continue making portraits of the Queen, until some good artist should have made a truthful likeness, to serve as model for all the copies to be made in future, after the model has, upon examination, been found to be as good and exact as it could be. It is further said that the natural desire of all the subjects of the Queen, of every rank and condition, to possess the portrait of H. M., having induced many painters, engravers, and other artists, to multiply copies, it has been found that not one of them has succeeded in rendering all *the beauty and charms of H. M.* with exactness, much to the daily regret and complaints of her well-beloved subjects. Order was, therefore, given for the appointment of commissioners (the French text says 'experts') to inquire into the fidelity of the copies, and not to tolerate any one, marked by deformity or defects, from which, by the grace of God, Her Majesty was free."

In conclusion, let us rejoice with our collaborator, M. Maury, that "the school of Champollion, therefore, feels every day the ground more steady beneath its tread; every day it beholds those doubts dissipating which at first offered themselves to its disciples in the face of denials made by jealous or stubborn minds. * * * * * It is to this 'monumental geology' (after all) that we are indebted for the demonstration of the two great historical laws that dominate over all the annals of Egypt; viz: the *permanence of races*, and the *constant mobility of tongues, beliefs, and arts*,—two truths which are precisely the inverse of that which had been for a long time admitted."[94]

III.—THE ART OF THE SHEMITES.

The term "Shemitic" (or *Semitic*), as it is popularly applied to certain races, languages, and types of physiognomy, has no reference to the genealogy or rather geography of the Xth chapter of Genesis, since it includes the Phœnicians, who, according to this old document, are descendants of Ham; whilst Elam, Assur and Lud, sons of Shem, must be classed among races different in character and language from what most scholars, since Eichhorn, have been accustomed to call Shemitic. This word is now constantly used to designate the *Syro-Arab* nations; that is to say, the Syrian, Phœnician, and Hebrew tribes (including Edom, Moab, Ammon, Midian, and the Nabatæans of Harran), and the Arabs both Yoktanide (Himyarite and Æthiopian) and Ishmaelite or Maadic. All those tribes and nations form a most striking contrast to the Arian or Japetide races, in language as well as in their national character.

It is difficult to over-state the influence of the Shemites on human

[94] *Des travaux modernes sur l'Égypte Ancienne*, Revue des Deux Mondes, Sept. 1855, p. 1078.

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civilization. Hence it has been said without exaggeration, that all the moral and religious progress of mankind may be summed up in the combined action of the Arian and Shemitic races: the former being the continuous warp, the latter the intersecting woof.[95] Whilst the civilization of Egypt, too proud to seek proselytes, remained isolated and spell-bound within the limits of its Nile-valley, the culture of the Shemites was eminently prolific and propagandist. Though they never exceeded thirty millions in number,[96] still their peculiar restlessness and commercial tendency, their migrations, deportations, colonizations, and wars of conquest, which dispersed them all over the ancient world, multiplied, as it were, their number by locomotion, and brought them into a kind of ubiquitous contact with most of the progressive races of mankind. The Japetides (Indo-Europeans, Arians, Iranians,) surpass the Shemites at least ten times in extent; yet, nevertheless, their civilization is deeply and lastingly affected by, and indebted to, the Shemites, without having been able to absorb and to transform them by amalgamation. Down to our days the Shemite race maintain their peculiar type so constantly, that their pedigree is still unmistakably stamped upon their features; and it is a curious fact that among the lower classes in central and north-eastern Europe, the consciousness of a difference of race remained so strong both with Shemites and Japetides, as often to prevent amalgamation, even where the difference of religion had ceased.

There are principally three nations among the Shemites which have become of the highest importance for the history of mankind. To the *Phœnicians*,—those first explorers of the Mediterranean and eastern Atlantic,—merchant-princes, manufacturers, and colonizers of antiquity—we owe the phonetic Alphabet, and probably the coinage of money. East and South to Phœnicia dwelt the *Hebrews*, who, though numerically few, have by their monotheism become the basis of modern civilization; whose financial genius moreover continues to be felt in all the great money-marts, upon which their invention of bills of exchange has concentrated the mobilized property of the world. Further to the South we meet with the *Arabs*, destroyers of idolatry, conquerors of northern Africa, civilizers of

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[95] BUNSEN, *Ægyptens Stelle*, preface, xii.

[96] According to RENAN'S rough estimate, their actual number is the following:—

In Arabia proper, about	6,000,000
The Syrians and Arabs of Asiatic Turkey	6,000,000
The Arabs of Africa: Egypt, Barbary, Morocco, Sahara, Sudàn	10,000,000
Shemitic Abyssinians	3,000,000
Jews all over the world	4,000,000

—(*Histoire et Système comparé des langues sémitiques*, p. 41.)

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the Black races, and merchants all along the shores of the Indian ocean.

All these carriers of civilization never knew the feeling of plastic and pictorial beauty. Painting and sculpture were proscribed among the Hebrews and Arabs by the most sacred precepts of religion,[97] whilst art never became national with the Phœnicians; who borrowed its forms in turn from Egyptians, Assyrians and Greeks, and often relapsed into their original barbarism of taste. But before we subject Shemitic art to a closer consideration, let us throw a glance on the peculiar civilization of that highly gifted race whose fortunes were always connected with the history of mankind, and whose culture modified Indo-European civilization repeatedly and in many respects.

M. Ernest Renan, in his History of the Shemitic languages,[98] describes the character of the Shemites in the most eloquent words, which, however, we must restrict in application to the Hebrew and Arab tribes, inasmuch as they evidently are incomplete as regards the Phœnicians and Syrians. Besides, we are bound to remind the reader that the author, carried away by the flow of his eloquence, is apt to over-state his case. We quote the following passage:

"Without predetermining the important question of the primitive unity or diversity of the Arian and Shemitic languages, we must say that, in the present state of science, the Shemitic languages must be considered as corresponding to a distinct division of mankind. In fact, the character of the nations speaking them, is marked in history by as original features as the languages themselves, which served as a formula and boundary to their mind. It is true that it is less in political than in religious life that their influence has been felt. Antiquity shows them scarcely playing any active part in the great conquests which swept over Asia: the civilization of Nineveh and Babylon, in its essential features, does not belong to nations of that race, and before the powerful impulse given by a new creed to the Arab tribes, it would be in vain to seek the traces of any great Shemitic empire in history. But what they were unable to do in the sphere of external power they accomplished in the moral sphere, and we may, without exaggeration, attribute to them at least one half of the intellectual work of humanity. Of the two symbols of the mind striving for truth, *science* or *philosophy* remained entirely foreign to them; but they always understood *religion* with a superior instinct; they comprehended it, I may say, with a sense peculiar to themselves. The reflecting, independent, earnest, courageous, in one word the philosophical research of truth, seems to be the heir-loom of that Indo-European race, which, from the bottom of India to the extreme West and North, and from the most remote ages to modern times, has always sought to explain God, and man, and the world, by reasoning; and accordingly left behind it — as landmarks of the different stations of its history — systems of philosophy, always and everywhere agreeing with the laws of a logical development. But to the Shemitic race belong those firm and positive intuitions which removed at once the veil from Godhead, and without long reflection and reasoning reached the purest religious form

[97] *Exodus*, xx., 4; *Deuteron*, V., 8: — Throughout Mohammed's *Kur'ân* these prohibitions abound.

[98] *Histoire générale et Système comparé des langues sémitiques.* Ouvrage couronné par l'Institut. Imprimérie Impériale, 1855. Vol. i. p. 3, seqq.

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antiquity ever knew. The birthplace of philosophy is India and Greece, amidst an inquisitive race, deeply preoccupied by the search after the secret of all things; but the psalm and the prophecy, the wisdom concealed in riddles and symbols, the pure hymn, the revealed book, are the inheritance of the theocratic race of the Shemites. This is above all others the people of Godhead; it is the people of religions, destined to create them and to carry them abroad. And indeed, is it not remarkable that the three monotheistic religions, which until now have acted the most important part in the history of civilization, the three religions marked by a peculiar character of duration, of fecundity and of proselytism, so thoroughly interlaced with one another as to appear like three branches of the same tree, like three expressions unequally correct of the same idea,—is it not remarkable, I repeat, that all the three were born among Shemitic nations, and have started from among them to pursue their high destinies? There is but a few days' journey from Jerusalem to Mount Sinai, and from Sinai to Mecca.

"The Shemitic race has neither the elevation of spiritualism known only to India and Germany, nor the feeling for measure and perfect beauty bequeathed by Greece to the neo-Latin nations, nor the delicate and deep sensitiveness characteristical of the Celts. Shemitic conscience is clear, but narrow; it wonderfully understands unity, but cannot comprehend multiplicity. Monotheism sums up and explains all its features.

"It is the glory of the Shemitic race to have in her earliest days arrived at that notion of Godhead which all the other nations had to adopt on her example and on the faith of her preaching. She has never conceived the government of the world otherwise than as an absolute monarchy; her "Theodicy" has not advanced one single step since the book of Job; the grandeur and the aberrations of Polytheism remained foreign to her. No other race can of itself discover Monotheism; India, which has philosophized with so much originality and depth, has, up to our days, not grasped it; and all the vigour of the Hellenic spirit could not have sufficed to lead mankind to Monotheism without the co-operation of the Shemites; but we can likewise state, that the Shemites would not have mastered the dogma of the unity of Godhead, had they not found its germ in the most imperious instincts of their souls and of their hearts. They were unable to conceive variety, plurality, or sex, in Godhead: the word *goddess* would be the most horrible barbarism in Hebrew.[99] All the names by which the Shemites ever designated Godhead: El, Eloh, Adon, Baal, Elion, Shaddai, Jehovah, Allah, even if they take the plural form, imply the supreme indivisible power of perfect unity. Nature, on the other hand, has little importance in Shemitic religions,—the desert is monotheistic. Sublime in its immense uniformity, it revealed immediately the idea of the infinite to men, but not the incessantly productive life, which Nature, where she is more prolific, imparts to other nations. This is the reason why Arabia was always the bulwark of the most exalted monotheism; for it would be a mistake to seek in Mohammed the founder of monotheism in Arabia. The worship of the Supreme God (*Allâh taâla*) was always at the bottom of Arabian religion."

"The Shemites never had mythology. The clear and precise way in which they conceived Godhead as distinct from the world, not begetting and not begotten, and having no like, excluded that grand poetry in which India, Persia, Greece [and the Teutonic râces], gave vent to their imagination, leaving the boundaries between God, mankind, and nature, undefined and floating. Mythology is the expression of pantheism in religion, and the Shemitic spirit is the most antagonistic to pantheism. What a distance between the simple concep-

[99] The author forgets, apparently, the goddesses of Syria and Phœnicia, the female idols destroyed by the Arabs upon their conversion to Islâm, and the Shemitic adoration of the Bætyles (Beth-El), the shapeless stones so often figured on coins. The black stone of the Kaâba belongs to the same class, and reminds us nearly of Fetishism. [Fresnel, when consul at Djidda, sent his slave to Mecca, and learned from him that, although the pilgrims had nearly kissed off the features, the stone still preserves the remains of a human face! (IVme *Lettre*, "Djeddeh, Jan. 1838."—*Journal Asiatique.*)—G. R. G.]

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tion of a God, distinct from the world, which he forms according to his will, as a vase is moulded by the hands of the potter, and those Indo-European theogonies, attributing a divine soul to Nature, conceiving life as a struggle, and the world as a perpetual change, thus carrying, as it were, the ideas of revolution and progress among the dynasties of Gods!

"The intolerance of the Shemites is the natural result of their monotheism. Indo-European nations, before their conversion to Shemitic ideas, never considered their religions as an absolute truth; they took them rather for a family heir-loom, and remained equally foreign to intolerance and to proselytism.[100] It is, therefore, exclusively among Indo-Europeans that we meet with freedom of thought, with a spirit of criticism and of individual research. The Shemites, on the contrary, aspiring to realize a worship independent of any provincial variations, were led in consistency to declare all other religions than their own to be mischievous. In this sense, intolerance is a Shemitic fact, and a portion of the inheritance, good and bad, which this race has bequeathed to mankind.

"The absence of philosophical and scientific culture among the Shemites may be derived from that want of breadth and diversity, and therefore of an analytical turn of mind, which characterizes them. The faculties begetting mythology are, in fact, the same which beget philosophy. Stricken by the unity of the laws governing the world, the Shemites saw in the development of things nothing but the unalterable fulfilment of the will of a superior being; they never conceived multiplicity in nature. But the conception of multiplicity in the universe becomes polytheism with nations which are still in their infancy, and science with nations that have arrived at maturity. This is the reason why Shemitic wisdom never advanced beyond the proverb and the parable,—points of departure for Greek philosophy. The books of Job and Ecclesiastes, which represent the highest culmination of Shemitic philosophy, turn the problem over and over again in all directions, without advancing one step nearer to the solution; to them the dialectic and close reasoning of Socrates is altogether wanting: even when Ecclesiastes seems to approach a solution, it is only in order to arrive at formulas antagonistic to science, such as "Vanity of vanities"—"nothing is new under the sun,"—"he that increaseth knowledge increaseth sorrow,"—formulas the result of which is, *to enjoy life, and to serve God*: and indeed these are the two poles of Shemitic existence.

"The Shemites are nearly entirely devoid of inquisitiveness. Their idea of the power of God is such, that nothing can astonish them. To the most surprising accounts, to sights most likely to strike him, the Arab opposes but one reflection, "God is powerful!" whilst, when in doubt, he avoids to come to a conclusion, and after having expounded the reasons for and against, escapes from decision by the formula 'God knows it!'

"The poetry of the Shemitic nations is distinguished by the same want of variety. The eminently subjective character of Arabic and Hebrew poetry results from another essential feature of Shemitic spirit, the complete absence of creative imagination, and accordingly of fiction.

"Hence, among these peoples, we may explain the absolute absence of plastic arts. Even the adornments of manuscripts by which Turks and Persians have displayed such a lively sentiment for color, is antipathetic to the Arabs, and altogether unknown in countries where the Arab spirit has remained untainted, as for instance in Morocco. Music, of all the arts most subjective, is the only one known to Shemites. Painting and sculpture have always been banished from them by religious prohibition; their realism cannot be reconciled with creative invention, which is the essential condition of the two arts. A Mussulman to whom the traveller Bruce showed the painting of a fish, asked him, after a moment of surprise: "If this fish, on the day of judgment, rises against thee and accuses thee by saying, *Thou* hast

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[100] This does not exclude their rigor against apostasy or infidelity at different periods of their history, since it implied an attack upon their national existence. With the Greeks, for instance, religion was intimately connected with nationality, and their nationality being exclusive, (for every foreigner was a *barbarian*.) proselytism became impossible.

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given me a body, but no living soul, what wilt thou reply?' The anathemas against any figured representation, repeated over and over again in the Mosaic books, and the iconoclastic zeal of Mohammed, evidently prove the tendency of those nations to take the statue for a real individual being. Artistic races, accustomed to detach the symbol from the idea, were not obliged to act with such severity."

Renan's remarks, as already mentioned, apply principally to the monotheistic branches of the Shemitic race, at their secondary stage of development: he ignores the peculiarities of the Phœnician nation, yet mankind owes nearly as much to the polytheistic branch of the Shemites, in spite of their voluptuous and cruel worship, including human sacrifices and indescribable abominations, so denounced in Hebrew and later Arabian literature,—as to their southern brethren of higher and purer morals. According to the authors of antiquity, as well as to all modern philologists, the pure phonetic alphabet is an invention of the Phœnician mind.[101] All the different phonetic alphabets of the world,—*perhaps* with the exception of the cuneatic and Hindoo (*Lat* and *Devanagiri*) writing,—have originated from the Phœnician letters; the Arian nations of course eliminating the Shemitic gutturals, and replacing them by their own peculiar modifications of the sound. The hieroglyphics of Egypt remained confined to the Nile-valley; the Devanagiri to the two Indian peninsulas and their dependencies; the cuneiform character to the basin of the Tigris and Euphrates, and to the highland flanking it to the east; whereas the Phœnician alphabet and those derived from it have been diffused over all the white race, not only Shemites, but Japetides and Turanians; and this fact practically proves the diffusion of Shemitic influence.

Second in importance only to the phonetic alphabet, is the invention of coined money, which is again Phœnician; although the Isle of Ægina and the empire of Lydia made rival claims to the priority of the invention.[102] But Ægina, the small island between Attica

[101] Compare for authorities: *Types of Mankind*, "Palæographic excursus on the art of writing, by Geo. R. Gliddon;" and RENAN, *Op. cit.*, I. p. 67. "L'écriture alphabétique est depuis une haute antiquité le privilège particulier des Sémites. C'est aux Sémites que le monde doit l'alphabet de 22 lettres."

[102] The earliest standard of coinage and of weights and measures in Greece was certainly that of Ægina, the invention of which was attributed to PHEIDON, king of Argos, and lord of Ægina. Still, criticism cannot but take Pheidon for a semi-mythical person, and the authorities about his epoch are irreconcilably at variance with one another. The Parian-marble chronicle places him about 895 B. C.: Pausanias and Strabo between 770–730 B. C., whilst Herodotus (VII. 27) connects him with events which took place about 600 B. C. OTTFRIED MÜLLER, therefore (*Dorier*, iii. 6) assumes two Pheidons; and WEISSENBORG suggests Pausanias may have placed him originally in the 26th Olympiad, which, by an error of the copyist, became the 6th in the extant MS. Whatever be the epoch of Pheidon, so much is certain, that the Æginean standard of weights and measures is not his invention. Boeck, in his "Metrologische Untersuchungen," has established the fact that it was borrowed from Babylon; Pheidon can therefore have only introduced it into Greece.

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and the Peloponnesus, though rich in silver-mines, possessed neither colonies nor extensive and uninterrupted foreign commerce, which alone can have given rise to the desire of a circulating medium of currency. Lydia, equally devoid of colonies and foreign extensive commerce, had not even a supply of gold before the conquest of Phrygia. The first money could not have been struck by any but a merchant nation. Neither Pharaonic Egypt, nor the empires of Assyria and Babylon, nor the Hebrew kingdoms, knew the use of coins. They weighed the gold and silver as the price for commodities bought and sold; but they never tried to divide it into equal pieces, or to mark it according to its weight and value. It was at a comparatively late period, scarcely prior to the seventh century before our era, that gold and silver were struck by public authority, to be the circulating medium. Alcidamas, the Athenian rhetor of the fourth century B.C., tells us, that "coins were invented by the Phœnicians, they being the wisest and most cunning of the Barbarians;—out of the ingot they took equal portions and stamped them with a sign, according to the weight, the heavier and the lighter."[103] —Ὀδυσσεύς κατὰ προδοσίας Παλαμήδους. — (See *Alcid.*)

Such are the lasting benefits mankind owes to the Shemitic race, which, besides, was in antiquity the forerunner of Indo-European civilization on the Mediterranean, and along the Eastern shores of the Atlantic, and subsequently again in Hindostàn and Java during the middle ages. Even now it paves the way for European culture and commerce in the Soodàn, and central Africa. These highly gifted carriers of civilization never rose, notwithstanding, to any eminence in imitative arts, and were unable to invent or establish a national style of painting or sculpture. As to the Hebrews and the Arabs, this deficiency is often attributed to the prohibitions of the Pentateuch and the Kur'àn: but it will probably be safer to derive the prohibition from the want of artistical feeling among the nations for whom the law was framed. Besides, the Arabs, even before Mohammed, had few or no idols of human form, no plastical art and no pictures; at the same time that the Kur'àn could not prevent the

[103] The standard weights of Nimrood, in the British Museum, carry now even the Babylonian talent further back, to Assyria, and it is not unimportant that their inscriptions are either purely Phœnician, or bilingual.—As to coinage, it is everywhere originally connected with the standard of weights: it is its result, its most practical application to silver and gold as measures of value. The standard of measures must have preceded the standard of coinage, and cannot be a contemporary invention. Pheidon may indeed have been the first who struck coin in Greece, and have introduced coinage together with the Babylonian standard of measures and weights from Phœnicia; but the Greek tradition which attributes to him the *invention* both of the standard of weights and of coinage, is as illogical as regards coins, as it is historically false as regards weights.

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Perso-Affghàn Mussulmans, both the Sheeâ and the Sunnee, to continue drawing and painting, and even sculpturing reliefs. Down to the present day, portraits are painted at Delhi and Cabool and Teheràn by true believers, without any religious scruples; whereas the Arab envoy of the Sultan of Morocco to Queen Victoria, whose daguerreotype was taken without his knowledge at Claudet's in Regent Street, felt himself both insulted and defiled for having had his form "stolen from him," as he expressed himself.

With the polytheistic branch of the Shemites, sculpture and painting were not prohibited by religion; and still no national style of art ever developed itself among the Syrians and Phœnicians, notwithstanding their wealth and industry, and love of display.

The extent and number of the monuments of art in Syria, Phœnicia, Palestine, and Idumæa, and of those remains which, by their Phœnician or Punic inscription, are designated as Shemitic, is not at all insignificant; although, measured by the standard of Egyptian, Greek, or Etruscan antiquities, they are, indeed, comparatively small. Still, these monuments form together no homogeneous class, characterized by certain peculiarities common to them all. Nothing but the place where they were found, or the Phœnician characters with which they are inscribed, designates them as Shemitic. They might all have been made by foreigners: Egyptians, Assyrians, Greeks, Etruscans, or barbarians. Of the ruins still extant, Petra, the rock-town of the Nabatæans, exhibits late Greek; Baalbek (Heliopolis) and Palmyra, late Roman forms of architecture. The rock-tombs of Jerusalem were evidently excavated by artists perfectly conversant with the Dorian column, who remained faithful to the Hellenic spirit of art, notwithstanding that they introduced grapes and palm-trees, and some oriental forms, into the decoration of their rock-structures.

As to Shemitic statues and reliefs, the most important among them undoubtedly is the black basalt-sarcophagus of ESHMUNAZAR, king of Sidon, discovered in February, 1855, near Sayda, the old Sidon. The French Consul, M. Peretié, acquired it, and sent it to France, where it has been deposited in the Louvre, as a worthy companion to the kingly monuments of Egyptian Pharaohs and Assyrian monarchs. The Phœnician inscription of the sarcophagus, read and analyzed by the Duc de Luynes,[104] is one of the most striking expressions of Shemitic feelings. It runs as follows:

[104] Mr. Dietrich of Marburg, Dr. Rüdiger, Prof. Lanci, and others, likewise published translations of, and observations on, this inscription, independently of the French Duke, whose translation, however, was read at the Institute previously to the publications of the learned Germans. Besides, his Memoir, published in 1856, is by far more complete as regards the analysis of the inscription, and the geographical, philological, and historical

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"In the month of Bul, in the fourteenth year of the reign of me, Eshmunazar, king of the Sidonians, son of king Thebunath, king of the Sidonians, the king Eshmunazar spake and said:

"Amidst my feasts and my perfumed wines, I am ravished from the assembly of men to pronounce a lamentation and to die, and to remain lying in this coffin, in this tomb, in the place of sepulture which I have constructed.

"By this lamentation I conjure any royal race and any man, not to open this funeral bed, not to search the asylum of the faithful (for there are effigies of gods among them,) not to remove the cover of this coffin, not to build upon the elevation of this funeral bed, the elevation of the bed of my sleep, even should some one say: 'Listen not to those who are humiliated, (in death): for any royal race, or any man who should defile the elevation of this funeral bed, whether he removes the cover of this coffin, or builds upon the monument which covers it, may they have no funeral bed reserved for themselves among the Rephaim (shadows): may they be deprived of sepulture, leaving behind them neither sons nor posterity: and may the great Gods (Alonim) keep them confined in hell.

"If it be a royal race, may its accursed crime fall back upon their children up to the extinction of their posterity.

"If it is a (private) man who opens the elevation of this funeral bed, or who removes the cover of my coffin, and the corpses of the royal family, this man is sacrilegious.

"May his stem not grow up from the roots, and not bring forth fruits; may he be marked by the reprobation among the living under the sun.

"For, worthy to be pitied, I have been ravished amidst my banquets and my perfumed wines, to leave the assembly of men, and to pronounce my lamentation, then to die.

"I rest here, in truth, I, Eshmunazar, king of the Sidonians, son of king Thebunath, king of Sidonians, son of the son of king Eshmunazar, king of the Sidonians, and with me, my mother Amestoreth, who was priestess of Astarte, in the palace of the queen, daughter of king Eshmunazar, king of the Sidonians, who built the temple of the great Gods, the temple of Astarte at Sidon, the maritime town, and we both have consecrated magnificent offerings to the goddess Astarte. With me rests also *Onchanna*, who, in honor of Eshmun, the sacred God, built Enedalila in the mountain, and made me magnificent presents; and *Onchanna*, who built temples to the great Gods of the Sidonians, at Sidon, the maritime town, the temple of Baal-Sidon, and the temple of Astarte, glory of Baal, so that in recompense of his piety, the Lord Adon Milchon granted us the towns of Dora and Japhia, with their extensive territories for wheat, which are above Dan, a pledge of the possession of the strong places which I have founded, and which he has finished as bulwarks of our boundaries endowed for the Sidonians forever.

"By this lamentation I adjure every royal race and every man, that they will not open nor overthrow the elevation of my tomb, that they will not build upon the construction which covers this funeral bed, that they will not remove my coffin from my funeral bed, in fear lest the great God should imprison them. Otherwise may that royal race, those sacrilegious men and their posterity, be destroyed for ever!"

The inscription leaves no possible doubt that we have the coffin of a king of Sidon before us; and still, if it had been found without an inscription, nobody would have doubted its Egyptian origin.[105] The mummy-shaped form of the coffin is identical with the basalt-sarcophaguses of the XIXth dynasty; and the peculiar conventional beard, the head-dress, the necklace, and the hawk-beads of Horus on

disquisitions connected with it.—(*Mémoire sur le Sarcophage et l'inscription funéraire d'Esmunazar, roi de Sidon*, par H. D'ALBERT DE LUYNES, Paris, 1856, p. 8, 9. [Equally Shemitic in spirit, is the Punic "sacrificial ritual" of Marseilles, as rendered by DE SAULCY (*Mém. de l'Acad. R. des Inscrip.*, 1847, XVII., 1e partie.—G. R. G.]

[105] [See "Inscription Phénicienne sur une Pierre à libation du Séraphéum de Memphis," by the DUC DE LUYNES, *Bul. Archéve de l'Athenœum Français*, August-Sept., 1855.—G. R. G.]

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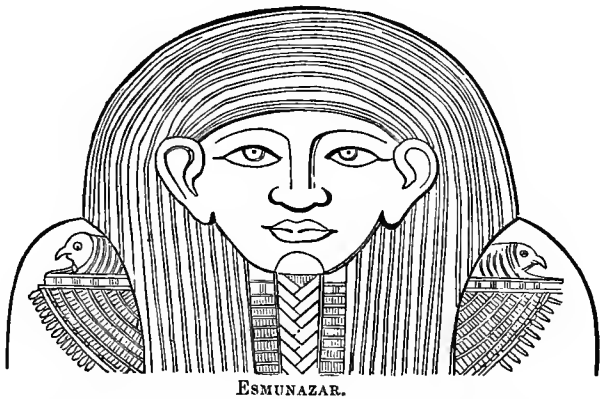
the shoulders of the king, all completely correspond with the three coffins of the family of king Amasis, sent by Abbas Pasha as a present to the Prince of Leuchtenberg. We are, therefore, author-

Fig. 19.



ESMUNAZAR.

ized to infer with the Duc de Luynes that Esmunazar was a contemporary of Amasis. And indeed, we find that Apries of Egypt, about B. C. 574, invaded Phœnicia, captured Sidon, and probably reduced this very king to a state of dependency on Egypt; which might account for the Egyptian style of king Esmunazar's coffin, unless we can prove that Phœnician sculpture was always a daughter of Egyptian art. Such an assumption might be maintained by the Pharaonic style of the type of some brass coins of the island of Malta, undoubtedly a Phœnician colony. But although the dress of the female head which we distinguish on those coins, is evidently Egyptian, and its ornament is the royal "*Atf*,"—the crown of Osiris and other deities, composed of a conical cap, flanked by two ostrich feathers with a disk in front, placed on the horns of a goat,—still, the reverse of the medal presents an entirely different style, viz: an imitation of Assyrian art. It is a kneeling man with four wings. But the coin of Malta is not the only instance of Assyrian style on Phœnician monuments. Dr. Layard has published several cylinder seals with the Phœnician name of the proprietor, engraved in Phœnician characters.[106] The lion-shaped weights in the Br. Museum, found in the palace of Nimrood,[107] bear, likewise, Phœnician inscriptions; but they cannot fairly be taken for works of Shemitic artists. They prove only, by their bilingual inscription, that there were two different nationalities in the empire, and that the system of weights and measures must have been peculiarly important to the Shemitic portion of its inhabitants—no other instances of bilingual official inscriptions

[106] LAYARD'S *Nineveh and Babylon*, p. 606:—LUYNES, *Sarcophage*, p. 59.

[107] LAYARD'S *Monuments of Nineveh*, 1st series. pl. 96:—*Nineveh and Babylon*, p. 605.

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having been discovered among the remains of Assyria. We are compelled, therefore, to dismiss the idea that Phœnician art was a development of Egyptian style, and must infer that the Shemites borrowed their artistical forms from the neighboring nations. Thus, the so-called Moabite relief, from Redjom el-Aabed, published by De Saulcy,[108] is closely allied in style to the Assyrian reliefs; and it might be taken for the work of the proud conquerors of Palestine, were not the type of the face, and the absence of the characteristical long-flowing Assyrian tresses rather Shemitic. Again, the lost Scriptural and mysteriously-engraved gems *Urim* and *Thummim*, which adorned the breast-plate of the Hebrew high-priest,[109] bear philologically such an affinity to the Egyptian *Uræus* and *Thmei*, judicial symbols of power and truth, that, as some Egyptologists have suggested, they might have been borrowed from Egypt. Without laying too great stress on this suggestion, which cannot be either proved or disproved, we must admit, that at the latest period of the Hebrew monarchy, the imagery of the prophets, — for instance, the vision of Ezekiel, — is entirely Assyrian. The *eagle*, the winged *lion*, *bull* and *man*, which finally became the symbols of the four Evangelists,[110] are now pretty familiar to us by the Assyrian reliefs of the Louvre and of the British Museum. So are the revolving winged orbs of the prophets; evidently the same symbolical emblems which, among the Egyptians, designated Hor-hat, the celestial sun,[111] and were transferred to Nineveh and Persepolis as the symbol of the *Feruers* or Guardian Angels.

Fig. 20.

Moabite.

[108] *Voyage dans les Terres bibliques*, 1853, Atlas, pl. XVIII: — *Types of Mankind*, p. 530.

[109] Lanci, *La Sagra Scrittura illustrata*, Roma, 1827; pp. 209–235, and Plates: — Idem, *Lettre à M.Prisse*, pp. 84–5.

[110] ["Est *vitulus* Lucas, *leo* Marcus, *avis*que Johannes,
Est *homo* Matthæus, quatuor ista Deus;
Est homo nascendo, vitulus mortem patiendo,
Est leo surgendo, sed avis ad summa petendo."
(Sjöberg, *Pa' Archäologisska Sällskapets kostnad och Förlag*, Stockholm, 1822, p. 43):— Münter (*Sinnbilder und Kunstvorstellung der alten Christen*, Altona, 1825, p. 25, pp. 44–5,) gives the patristic citations from Irenæus, Augustine, Jerome, &c. "Rident autem Judæi et Arabes," adds old Gaffarelli. — G. R. G.]

[111] [*Otia Ægyptiaca*, pp. 95–6:—*Types of Mankind*, p. 602. I re-allude to this because I find in Basnage (*Hist. of the Jews*, p. 248) that the texts of Isaiah and Malachi were explained by the *sun* "with wings" as far back as 1701. — G. R. G.]

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But the Phœnicians had no peculiar predilection for the forms of art connected with the civilization of hieroglyphics, or of the cuneiform character. Unable themselves to create a national style of art, they adopted Grecian art instead. The types of all the coins of Phœnicia and Cilicia, whether "*autonomous*" or inscribed with the name of the Persian Satraps, are Greek as regards the style; so too are the medals of the Carthaginian towns of Sicily, vying in beauty with the best Syracusan medals. "Their elegance," according to Gerhard,[111] "is a proof, not of proficiency, but of the absence of national art, since there only can a foreign style be introduced, where it has no national forms to displace." Even the Cypriot-head, discovered by Ross and published by Gerhard,[112] is in its principal forms entirely Greek, reminding us of the earliest Hellenic style; and it is therefore classed by Gerhard among the specimens of archaic Greek sculpture, although found on an originally Phœnician island, because we know of no other instance of a similar style of Shemitic art, at the same time that the Greek reliefs of Selinus are analogous to it.

Fig. 21.

Cypriot Venus.

The soil of Carthage and of northern Africa, over which Punic domination extended, has not yielded any monuments of Carthaginian art, all such traces of Punic civilization having been completely swept away by the Roman conquest and its superimposed civilization. Accordingly, it is to Spain and to Sardinia that we have to look for specimens of Carthaginian art. But the bronze statuettes disinterred from the Punic mounds of Sardinia (*Nuraghe*)[113] are so barbarous and unartistical, that we might have ascribed them to indigenous tribes, had we not found entirely analogous idols on some islands of the Archipelago,[114] and at Mount Lebanon. David Urquhart, M. P., the well-known oriental traveller and diplomatist, brought five such statuettes from among the Maronites, discovered during his stay in Syria, which now enrich my collection of antiquities. Similar monuments were procured from ancient Tyre by the late M. Borel, French Consul at Smyrna.

[111] *Über die Kunst der Phœnicier*, Berlin, 1848, p. 21.

[112] *Ibidem*, pl. VIII. 2, "Kyprische Venusidole."

[113] Cf. De la Marmora (*Voyage en Sardaigne de* 1829 *à* 1836,) for plates and descriptions.

[114] Gerhard, *loco citato*.

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We publish some of these bronzes as specimens of the original and unadulterated Shemitic art.

The first, in fig. 22, is a statuette with some Egyptian touches; but

Fig. 22.

MOLOCH, (*Pulszky Coll.*)

the next, and fig. 23, are of progressive barbarism—all characterized by the peculiar head-dress in the shape of a horn, the "exalted horn" of the Scriptures, which, down to the present day, has endured in the national ornament of the Druse females. The ugliness of these, no less than of the Sardinian statuettes,—scarcely reconcilable with commonly received ideas about the wealth and display of the merchant-princes of Sidon and Tyre, and the power of Carthage,—ought not to throw a doubt upon their Shemitic origin; for, according to Herodotus,[115] ugly and distorted representations were not excluded from among the Phœnician forms of godhead.

[115] HERODOTUS, III. 37.

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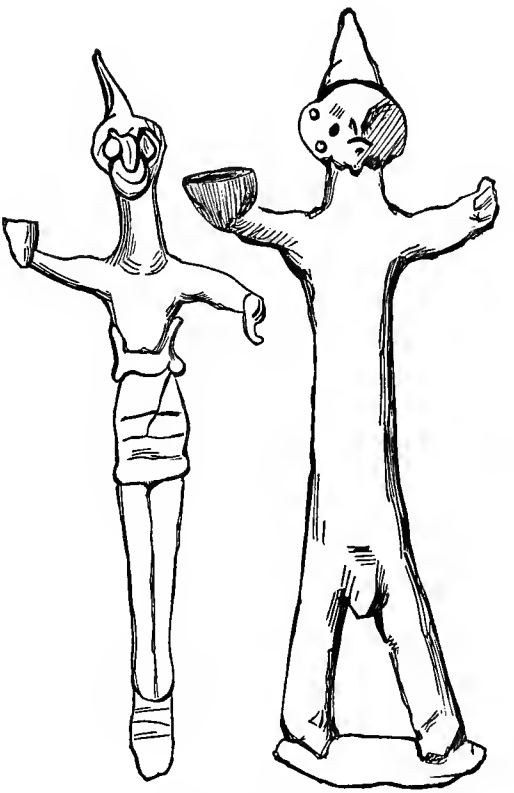
Fig. 23.



ESHMUN, (*Pulszky Coll.*)

"Winckelman's guess," says Gerhard, in his often quoted essay, "that elegance might have been the principal feature of Phœnician art, is not borne out by the extant idols; these are rude and intended to strike terror, like the idols of Mexico.[116] . . . . All the oriental elements in Greek and Etruscan art," he continues, "formerly attributed to Phœnician influence, can be traced to quite different countries of Asia, first to Candaules and Crœsus of Lydia, but if we ascend to the source—to Babylon and Nineveh. According to the remains of Phœnician monuments, the merit of this nation must be restricted to the clever use of some peculiar materials, for instance, bronze, gold, and ivory, glass and purple; and to their mediating assistance afforded to the higher art of inner Asia, by copying their forms, and by carrying them to the west."

The Shemites being destitute of higher national art, it is to the Egyptian and Assyrian monuments that we are indebted for the preservation of the ancient Shemitic cast of features, which has remained unchanged for thirty and more centuries.[117] We could not have recognized them in the works of their own artists, who either imi-

[116] GERHARD, *op. cit.*, p. 17, 21.

[117] See examples in *Types of Mankind*, chapter iv. "Physical History of the Jews."

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tated the Egyptians, Assyrians, and Greeks, or relapsed into complete barbarism, but never felt any inward impulse of their own to reproduce nature in sculpture and painting.

Our researches on Shemitic art clearly establish the fact, that, highly gifted races may be unartistic, and that neither wealth nor love of display, neither inventive genius nor culture, can create art among them.

IV.—THE NATIONS OF THE CUNEIFORM WRITING.

The country lying east of the homestead of the Shemites, embracing the plain of Mesopotamia, and the highlands flanking the Tigris up to the Persian desert, was in antiquity always the seat of great empires,—expanding principally towards the west, often threatening and sometimes subduing the Asiatic coast of the Mediterranean, and extending its influence to Europe. The populations dwelling along the Euphrates and Tigris, and on the Armenian and Persian table-land—were not homogeneous. Cushite, Shemitic, Arian, and Turanian elements struggled here against one another: the sceptre of the West Asiatic empire often changed hands amongst them, but always within the limits mentioned above; being transferred from Nineveh to Babylon, from Babylon to Ecbatana and Persepolis; again to Seleucia, thence to Ctesiphon, and at last to Bagdad. The national peculiarities of this empire have remained in many respects a puzzle for the ethnologists. What was the precise character of the languages of Assyria and Babylonia—what the seat of the Scythians who invaded the empire, and ruled it for twenty-eight years; and what the national type of the Medes, and perhaps even of the Parthians,—are difficulties not yet solved, which require further investigation.

All modern chronologists and philologists agree about the ancient Persians, that they were pure and unmixed Japetides, or Indo-Europeans; so much so, that the name by which they themselves called their race—*Arians* or *Iranians*—has been adopted for designating the peculiar family of the white race to which they belong. The Medes[118] and the Parthians, on the other side, are classed among the Turanians, or Scythians, or Turk-Tartars. As to the Assyrians and Babylonians, the following is the result of the latest researches:

The Chevalier Bunsen,—whose eminently suggestive works will remain of the highest value, even when a more thorough knowledge of the subjects he treats may have modified many of his hypotheses

[118] According to Strabo, the difference of the Mede and Persian languages was a difference of mere dialect: still, our scholars unanimously designate the Scythian (or Turanian), second inscription of Behistûn, by the word *Median*.

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and conclusions; MAX MÜLLER, the well-known Sanscrit scholar; and LEPSIUS, the celebrated Egyptologist; are the foremost of a school which tries to find out a union between the Shemitic and the Arian races, and to derive all the languages of Europe and of Asia from one common original stock. According to their theory, the languages of the old world may be classed into four distinct families: *Hamitic* or Cushite, *Shemitic*, *Turanian* (including the Chinese, the Turk-Tartars and Malays,) and *Arian*. Proceeding farther, they assert that the Hamitic is but an earlier form of the Shemitic, whilst the Arian is for them nothing more than the development of the Turanian. Having reduced the four families to two, they seek a union between the Shemitic and Arian, and believe they have found the traces of this original unity, first in the ancient Egyptian, and again in the Babylonian and Assyrian.[119]

However, these conclusions are rather speculative hypotheses than acquired scientific facts. Lepsius acknowledges that the Coptic forms a branch as distinct and as distant from the Shemitic, as the Shemitic is from the Arian; whilst Bunsen and Max Müller admit the same, by placing that which they call the sacred language of Assyria and Babylonia "between Hamitism, or the ante-historical Shemitism in Egypt, and the historical Shemitic languages;"[120] and again, by stating that "the cuneiform inscriptions of Babylon exhibit to us a language in the transition from primordial to historical Shemitism."[121]

Renan, on the other hand, cannot imagine how any Shemitic language could have been written in a non-Shemitic alphabet:

"In early antiquity, language and alphabet are inseparable: the cuneiform characters may have been adopted by nations having no alphabet of their own; but how should the imperfect, ideographic, system of Assyria and Babylon have served for writing languages which had a more developed system of writing of their own?"

Besides, according to him, the national history of the Assyrians and Babylonians has no Shemitic characters.

"Shemitic life is simple and narrow, patriarchal, and hostile to centralization. The Shemite dislikes manual labor, and the patience and discipline—such as raised gigantic structures like those of Egypt and Assyria,—are wanting with him. At Nineveh, on the contrary, we meet with a great development of material civilization, with an absolute monarchy, with flourishing imitative art, with a grand style of architecture, with a mythology impregnated with Arian ideas, with a tendency to see an incarnation of Godhead in the king, and with a spirit of conquest and centralization."

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[119] BUNSEN and MAX MÜLLER, *Outlines of the Philosophy of History*:—LEPSIUS, Ist, *Anordnung und Verwandtschaft des Semitischen, Indischen, Altpersischen und Altæthiopischen Alphabetes;* and IId, *Ursprung und Verwandtschaft der Zahlwörter.*

[120] *Hippolytus*, III, p. 183, seqq.: — *Outlines*, I, p. 183, seqq.

[121] *Livre* I, *Chap.* II. § 3, 4.

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The Chaldeans of Babylonia, with their magnificent robes, riding on high-spirited horses, and wearing high tiaras, as described by Ezekiel,[122] are therefore, for Renan, not Shemites, but a branch of the ruling race of Assyria; which, according to him, was Arian. As to the names of the kings: *Tiglath-Pilesar*, *Sennacherib*, *Sargon*, *Evil-Merodach*, *Markodempal*, &c.—they are contrary to the fundamental laws of the Syro-Arabic languages, and cannot be reduced to Shemitic roots. But again, most of the towns and rivers in Assyria and Babylonia have Shemitic names; whence he infers that the bulk of the population in Mesopotamia must have been Shemitic, but subject to a conquering race of Arians, which formed a military aristocracy and a religious caste, both summed up in the person of the absolute king.

We cannot but admit the force of Renan's reasoning; and his conclusion about the two nationalities in Assyria and Babylonia[123] (that is to say, about the Shemitic character of the bulk of the people with a ruling race of Iranians), is supported by the Shemitic and bilingual inscriptions on some Assyrian monuments already noticed. This view of a mixed population inhabiting Mesopotamia, sufficiently explains the semi-Shemitic peculiarities of the languages of the cuneiform inscriptions on the monuments of Nineveh and Babylon: and the reasoning of the learned author of "the Genesis of the Earth and of Man," leads to the same result when he observes,—"a mixed language obtaining in one country indicates a mixture of races; and the grammar of that language, by its being unmixed or mixed, is an index to the number and power of one race in comparison with the other at the period of the formation of the mixed language."[124] According to this rule, the Assyrian aud Babylonian, instead of forming the "transition between ante-historical and historical Shemitism," must be considered as the result of the mixture of Shemitic and Arian elements, at any rate not anterior to historical Shemitism. The monuments of art discovered in Assyria and Babylonia lead to the same conclusion, viz: that the ruling classes were Arian, since all the sculptures connected with cuneiform inscriptions bear the same Arian character at Nineveh as well as at Persepolis. In fact, the civilization and the fundamental ideas about political government and provincial administration are identical among all the nations making use of the cuneiform character, though we must admit dif-

[122] *Chapter* XXIII.

[123] GESENIUS had, long before Renan, insisted upon the northern origin of the Chaldeans as a conquering race in Babylonia, different from the bulk of the population.

[124] Edited by R. STEWART POOLE, Edinburgh, 1856, p. 155:—compare *Types of Mankind*, 1854, voce "Elam," pp. 533–4.

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ferent degrees of development. The Babylonian inscriptions abound with ideographic groups reminding us of the hieroglyphics of Egypt, whilst the Arians of Persia borrowed the phonetic system from the Shemites, but retained the form of the wedge. As to their artistic capacities, the Assyrians occupy the highest rank, in some of the bas-reliefs of Sardanapalus second only to the Greeks. Some of the Persepolitan seals are likewise of a high, chaste, and sober style of art, peculiarly charming by the introduction of picturesque folds into the heavy Assyrian garments. The Babylonians, with whom the Shemitic element always preponderated, were little artistic; inscriptions were more copious with them than reliefs, and their sculptures are without exception rude in execution, and monotonous in conception.

It is difficult to speak about the origin or the early history of Assyrian art. The earliest mention of the empire occurs in the hieroglyphic annals of THUTMOSIS III, the great conquering Pharaoh of the XVIIth dynasty, about the seventeenth century, B. C., who caused his victories to be recorded on a slab deciphered by Mr. Birch.[125] We hear of the defeat of the king of *Naharaina* (Mesopotamia); or of the chief of *Saenkar*, (Shinar) bringing as tribute blue-stone of *Babilu*, (lapis-lazuli from Babylon). Under AMENOPHIS III, we find *Asuru*, *Naharaina* and *Saenkar*, again among the conquered countries.[126] And, as corroborative of the truth of the hieroglyphical records, Egyptian scarabs with the engraved names of these two kings have been found in various parts of Mesopotamia.[127] At a somewhat later period, under the XXth dynasty of the RAMESSIDES, the chief of *Bakhtan* [128] offers his daughter to RAMESSES XIV, who marries her; and soon after, about the time when the Ark of the Covenant was taken from the Israelites by the Philistines, sent the Ark of the Egyptian God, KHONS, from Thebes to Bashan, as a remedy to his sister-in-law, who was possessed by an evil spirit.[129] The intercourse between Egypt and Mesopotamia became soon still more close and intimate.[130] We find Pharaoh PIHEM, the head of the XXIst dynasty, journeying on a friendly visit to Mesopotamia:[131] moreover, his successors and their descendants, — to judge by their names, —

[125] BIRCH, *The Annals of Thotmes* III, vol. v. of the Transactions of the Roy, Soc. Liter. — New series, p. 116.

[126] LEPSIUS, *Denkmäler* III. Bl. 88.

[127] LAYARD, *Nineveh and Babylon*, p. 281: — *Types of Mankind*, p. 133, fig. 32.

[128] Egyptologists identify Bakhtan with the scriptural Bashan "*in upper Mesopotamia*," as they call it, though it is rather bold to call Mesopotamia the country bordering on the tribe of Manasseh. — In consequence, some favor *Ecbatana*.

[129] BIRCH, *Transactions R. Soc. Lit.* IV. p. 16 & f.

[130] LEPSIUS, *Denkmäler* III, Bl. 249.

[131] BIRCH, *Transactions R. Soc. Lit.* 1848, p. 164 & f.

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are connected with Mesopotamia; inasmuch as the names of Osorkon, (*Sargon*) Takeloth (*Tiglath*), Nimrod, and Keromama (*Semiramis*,) are altogether un-Egyptian, and strongly Assyrian. About this time (9th and 10th century B. C.) ivory combs, and decorative sculptures of Assyrian design became fashionable in Egypt,[132] and show that the Assyrian style of art was already fully developed. The celebrated black marble obelisk of king Divanubar (*Deleboras?*), in the British Museum, belongs to about the same period, being synchronic with king Jehu of Israel (about 820 B. C.), and bears no peculiar traces of archaism. The archaic human-headed bull and lion of Arban, published by Layard,[133] must therefore be placed by several centuries before the obelisk, and may perhaps belong to the time of the first contact of Mesopotamia and Egypt under the conquering kings of the XVIIth and XVIIIth dynasties.

"Their outline and treatment," says Layard, "are bold and angular, with an archaic feeling conveying the impression of great antiquity. They bear the same relation to the more delicately finished and highly ornamented sculptures of Nimroud as the earliest specimens of Greek art do to the exquisite monuments of Phidias and Praxiteles. The human features are, unfortunately, much injured, but such parts as remain are sufficient to show that the countenance had a peculiar character, differing from the Assyrian type. The nose was flat and large, and the lips thick and overhanging, like those of a *negro*."

To judge by the drawing of Dr. Layard, knowing the correctness of his designs, we must observe that the head of the Arban bull has as little of nigritian characters as the head of the colossal sphinx[134] before the second Pyramid; which had formerly likewise often been compared to a Negro, exclusively on account of the fulness of the lips, and the defacement of its nose by Arab iconoclasts.[135] The face, however, on both these monuments, has no particular projection of

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[132] De Rougé, *Notice*, p. 16: — established also by Birch, "On two Egyptian cartouches found at Nimroud," 1848, pp. 153–60; abundantly figured in Layard's folio *Monuments of Nineveh*, 1849.

[133] *Nineveh and Babylon*, p. 276 & f.

[134] [Since the studies of Lenormant (*Musée des Antiquités Égyptiennes*, p. 44), and of Letronne (*Recueil des Inscriptions Grecques et Latines*, II, 1848, pp. 460–86), the epoch heretofore attributed to the Great Sphinx, viz: to Amosis (*Aahmes*) of XVIIth dynasty, has also been carried to the more ancient period of the Old Empire, through the successive explorations of Lepsius (*Briefe*, 1852, pp. 42–5), Brugsch (*Reiseberichte*, 1855, pp. 10–34), and more than all by Mariette, who re-uncovered this rock-colossus in 1853. The enigma of the "Sphinx," through the latter's researches, has vanished likewise! It is but "Horus of the horizon," *i. e.* the *setting sun*. (De Saulcy, "Fouilles du Sérapéum de Memphis," *Le Constitutionel*, Paris, 9 Dec. 1854: — Maury, *Découvertes en Égypte*, p. 1074) — G. R. G.]

[135] [Makreezee narrates how the *nose* of the Sphinx was chiselled away by a fanatical muslim saint, about 1378: — Cf. Fialin de Persigny, then "détenu à la maison de santé de Doulens," (*De la Destination et de l'Utilité permanente des Pyramides de l'Égypte et de la Nubie contre les Irruptions Sablonneuses du Désert*, Paris, 8vo. 1845). — G. R. G.]

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the jaws, and the facial angle is open. The fulness of the lips peculiar to the Egyptian, or negroid type, reminds the man of science only of Egypt, not of negroes; who, in spite of Count DE GOBINEAU'S ingenious hypotheses,[136] could not have been the ancestors of the Arian monarchs of Mesopotamia. Though all the human-headed bulls of Assyria are royal portraits, just as sphinxes of Egypt were likenesses of the Pharaohs,[137] still, we are scarcely authorized to draw any conclusion about an Egyptian origin of Assyrian art from the negroid (perhaps Arab-*Cushite*) cast of features of the Arban king; for, in all other respects, the colossus exhibits the marked characteristics of Assyrian art; for instance, in the elaborate arrangement of the curls and beard, the architectural peculiarity of the five feet of the bull, instead of four, together with the exaggeration of the muscles. Assyrian art, in its earliest known remains, appears entirely national and independent of Egypt; and it maintains its peculiar type through the vicissitudes of several centuries down to the destruction of the empire. We do not mean to say that Egypt exerted no influence whatever on Assyria; on the contrary, there are some bronze cups and ivory ornaments and statuettes, in the British Museum, evidently imitated from Egyptian models; still, the Egyptian exerted but a temporary influence on the decorative element of the Assyrian style, without modifying the art of Assyria, which can best be designated by the epithet of "princely." The king, according to the reliefs, sums up the whole national life of Nineveh. Wherever we look, we meet exclusively with *his* representations, surrounded here with *his* court, there with *his* army, receiving tribute and concluding treaties, leading *his* troops and fighting battles, besieging fortresses and punishing the prisoners, hunting the wild bull and the lion of the desert, feasting in *his* royal halls and drinking wine from costly cups. Even the pantheon of Assyria is mostly known by the worship, oblations, and sacrifices of the king. The scenes of domestic life, and of the sports and occupations of the people, which, in Egyptian reliefs, occupy nearly as much place as the representations connected with royalty, are altogether wanting at Nineveh. There are a few slabs that represent domestic occupations—a servant curry-combing a horse, a cook superintending the boilers, and the butchers

[136] DE GOBINEAU, in his *Inégalité des races humaines*, attributes the artistic faculties of any race to an admixture of Negro or Mongol blood, although he acknowledges that pure Negroes are unartistic.

[137] The union of a human head to a lion in Egypt, and to a bull in Assyria, implies an apotheosis; since the lion and the bull were the symbols of Gods, the terrestrial images of celestial beings.

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disjointing a calf;[138] but all this is done before the tent of the king: it is the *royal* stable and the *royal* kitchen which we see before us,—in fact, "court-life below stairs." The rich Asiatic costume of the Assyrians, wide and flowing, decorated with embroidery, fringes and tassels, contrasts most strikingly with the prevalent nakedness of Egyptian and Greek art. We are always reminded of the pomp, splendor and etiquette of eastern courts. The proportions of the human body are somewhat short and heavy, less animated in their action, but more correctly modelled than in Egyptian reliefs. Nothing but an occasional want of correctness about the shoulders and the eyes, which, in the bas-reliefs, are drawn in the front-view, reminds us of the infancy of art or of a traditionary hieratic style. The anatomical knowledge, however, with which the muscles are sculptured, even where the execution is rather coarse, surpasses the art of Egypt in the time of the XVIIth dynasty. The composition is generally clear, the space conveniently and symmetrically filled with figures, and the relief, to a certain degree, has ceased to be a mere architectural decoration: on the palace of ESSARHADDON, it has even become a real tableau. For all this, we cannot appreciate the merit of the sculptures, if we pass our judgment upon them independently of the place for which they were originally destined. Accordingly, the peculiarly Assyrian exaggeration in representing the muscles of the body has often been criticized;[139] since it escaped the attention of our modern art-critics, that this fault is only apparent, not real, being produced exclusively by the different way in which the bas-reliefs were lit in antiquity and modern times. In the hot climate and under the glaring sun of Mesopotamia, the palaces were built principally with the view to afford coolness and shade; and therefore all the royal halls were long, high and narrow, in order to exclude the rays of the sun. They could, in consequence, but very imperfectly have been lighted from above, through apertures in the colonnade supporting the beams of the roof. A cool *chiaroscuro* reigned in all the apartments; and unless the reliefs on the wall were intended altogether to be lost to beholders, it was indispensable to have the principal lines deeply cut into the alabaster, in order to produce a sufficiently-intense shadow for making the composition and its details apparent. The Assyrian sculptors, with true artistical feeling, calculated upon the effect their works were to make in the king's palaces; but could not dream that their compositions were to be

[138] BONOMI, *Nineveh and its Palaces*, p. 228–29; an octavo which admirably popularizes the costly folios of BOTTA and FLANDIN'S *Ninive*.

[139] BONOMI, *Nineveh and its Palaces*, p. 315.

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exposed, 28 centuries later, to the close inspection of the critics of our day in well-lighted museums.

When we claim a peculiar national type for Assyrian art, altogether independent of Egyptian, we do not mean to deny accidental Egyptian influence, which, however, could not transform Assyrian sculpture into a branch of Nilotic art. The beautiful embossed bronze bowls, ivory bas-reliefs and statuettes found at Nineveh, are certainly imitations of Egyptian models; but we encounter similar artistical fashions at Rome in the time of Hadrian. They remained altogether on the surface, and did not affect the national style. Still, we do find some artistic "motives," even on the best reliefs of Nimrood and Khorsabad, which show on the one hand, that the Assyrian sculptors were acquainted with some Egyptian monuments of art; and on the other, that this acquaintance ever continued to be superficial. Thus, for instance, we often meet on Pharaonic battle-scenes, with the vulture, holding a sword in its claws, soaring above the king, as a symbol of victory. The Ninevite artists copied this representation, but, unacquainted with its hieratic symbolical meaning, sculptured the vulture simply as the hideous bird of prey, feeding upon the corpses on the battle-field, and carrying the limbs into its eyrie. In a similar way, the winged solar disc, the symbol of the heavenly sun, was transformed in Assyria into the guardian-angel of the king himself, and transferred at a later age to Persia as the *Feruer*.

The following representation of an Assyrian [24] gives us a fair idea of the Arian type of the Ninevite aristocracy. It is the head of a statue of the God NEBO, in the British Museum, bearing across its breast an inscription, stating that the statue was executed by a sculptor of Calah, and dedicated by him to his lord PHALUKHA, (*Belochus, Pul,*) king of Assyria, and to his lady SAMMURAMIT (*Semiramis*) queen of the palace (about 750 B. C.).

Fig. 24.

NEBO.

The same general cast of features is clearly discernible in an inedited portrait of ESSARHADDON [25] (about 660 B. C.) taken from the great triumphal tableau at Kouyundjik, now in the British Museum. The Ninevite artists,—who, about the time of this king, introduced a

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new feature into *relievos* by trying to combine landscape and natural objects with the great historical compositions, — were perfectly aware of the differences in the national types also. The two prisoners at the feet of king ASSARAKBAL III, are evidently not Assyrians, one of them [26] being a Shemite, the other [27] an inhabitant of the table-lands of Armenia, if not a Kurd. Sir Henry Rawlinson deems them *Susians.*

Fig. 25.

ESSARHADDON.

Still nobler than ESSARHADDON is the SARDANAPALUS [28] (635 B. C.) of the British Museum, a truly magnificent prince, the father of the king under whom Nineveh was destroyed, and who, in the Greek histories, is mentioned under the same name. His monuments, lately discovered,

Fig. 26

SHEMITE PRISONER, (*Inedited*).

Fig. 27.

KURDISH PRISONER, (*Inedited*).

and brought to England by Mr. Rassam, are so exquisitely modelled, and executed with such a highly-developed sense of beauty, that we must rank them among the best relics of ancient art. The peculiar hair-dress of the king seems to have served as a model to the Lycian sculptor of the Harpy monument of Xanthus, in the Br. M.; and it is remarkable that the female head [29] of an archaic coin of Velia, in Italy, shows the same arrangement of the hair. Velia was a colony from Phocæa, in Ionia, whose high-minded citizens preferred abandoning their country, rather than to live under the

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sway of the conqueror Crœsus. They carried the traditions of

Fig. 28.

SARDANAPALUS.

Fig. 29.

SILVER COIN FROM VELIA, (*Pulszky coll.*)

Asiatic art into Italy, at a time when Hellas could not yet boast of eminence in sculpture. But although the hair-dress of the Velian female closely resembles and may be traced back to Assyrian models, which are about two centuries older, still the cast of the features is not the same. It is, as might be expected, thoroughly Greek. Whilst, as a remarkable instance of the constancy of national types, the likeness between the modern Chaldeans (Nestorians) and the old Assyrians is unmistakable. To illustrate this properly, we give, side by side, sketches of a Chaldean merchant of Mosul, and a head from one of the Nineveh sculptures.[140]

Fig. 30.

MODERN CHALDEE.

Fig. 31.

ANCIENT ASSYRIAN.

Babylon, of whose art but few remains have as yet been dis-

[140] *Illustrated London News*, May 24, 1856.

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covered,—mostly cylindrical seals of lapis-lazuli and hæmatite, and some terra-cottas—was less artistical than Nineveh. Its statuary was a branch of the Assyrian, not differing in style, but only in perfection. All the Babylonian monuments, without exception, are evidences of the more Shemitic character of the country; whither art has been imported from Nineveh, without ever becoming thoroughly understood.

A nobler spirit prevailed in Arian Persia. The royal palaces and tombs of the Achæmenian kings yield numerous specimens of Persian art, mostly belonging to the great time of Persia under DARIUS HYSTASPES and his son XERXES. Nevertheless, one monument, which shows the origin of art under the Achæmenidæ, has likewise escaped the ravages of time, and is probably the earliest of all the Persian reliefs. We speak of the rock-sculpture at Murghâb, close to Persepolis, representing a man with four wings, clad in the long Assyrian robe without folds, and bearing on his head the Egyptian crown called "Atf," which is the peculiar distinction of the God *Chnum*. The cuneiform inscription, above the sculpture, says, with grandeur and simplicity: "I am CYRUS, the king; the Achæmenian."[32] This monument was evidently, then, erected in honour of Cyrus, but it cannot have been sculptured in the life-time of the conqueror, inasmuch as his wings (which are the Assyrian attributes of Godhead), and the crown of *Chnum* (which is the Egyptian symbol of divine power), clearly indicate an apotheosis. The peculiarity of the costume of Cyrus, which is purely Assyrian, without folds, forbids us to place the sculpture in the time of Darius or his descendants; whose monuments, with-

Fig. 32.

CYRUS.[141]

[141] VAUX, *Nineveh and Persepolis*, 4th ed., London, 1855; Plate, pp 392–3.

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out exception, are characterized by the Persian folds of the garment.

Thus, then, the relief of Murghâb must be the work of CAMBYSES, who, according to Diodorus Siculus,[142] employed Egyptian artists, and was probably the first to introduce art into Persia. According to the rock-sculpture, however, he did not confine himself to Egyptians, but transplanted sculptors likewise from Babylonia and Assyria to Pasargadæ, and dedicated their first work to the lasting memory of his illustrious father (about 530 B. C.). Thus, we may safely state that Persian art is a daughter of the Assyrian, a little modified by Egyptian influences, but soon emancipating itself from its early traditions by a purely national development, characterized by the very high elegance of the drapery. Bonomi[143] takes the Persian style, wrongly, for a deterioration of Assyrian art; but his mistake is easily explained, since he formed his judgment upon some fragments of a later period, which are now in the British Museum, and upon the drawings of Ker Porter and Gore Ouseley. The *Perse* of Flandin, and the *Arménie* of Texier, seem to have escaped his attention. They are the only ones, notwithstanding, which do full justice to the refined taste and the neat execution of the sculptures of Persepolis. In comparison with the Assyrian Monuments of SARGON and ESSARHADDON, they take the same place, as, in Egypt, does the elegant style of PSAMMETICUS contrasted with the grandeur of the statues of the AMENOPHS and THUTMOSES. We must, however, acknowledge that they are inferior to the reliefs of SARDANAPALUS.

Although the head of Cyrus (as shown by the more accurate copy of Texier[144] [33] here presented,) at Murghâb, is somewhat damaged about the nose, it is sufficiently characteristic to show its pure Arian type. The portrait of XERXES,[145] [34] is a fine specimen of the so-termed Greek profile, which we ought to call pure Arian. The Achæmenidan sculptors moreover, were very well acquainted with the peculiar character of the different na-

Fig. 33.

CYRUS.

Fig. 34.

XERXES.

[142] *Libro* 1, *capite* 46.

[143] *Nineveh and its Palaces*, p. 315.

[144] *L'Arménie, la Perse, et la Mésopotamie*, II., pl. 84—"Bas-relief à Mourgàb, *Cyrus*."

[145] COSTE and FLANDIN, *Perse Ancienne*, pl. 154; but compare the more beautiful copy in TEXIER'S *Arménie*.

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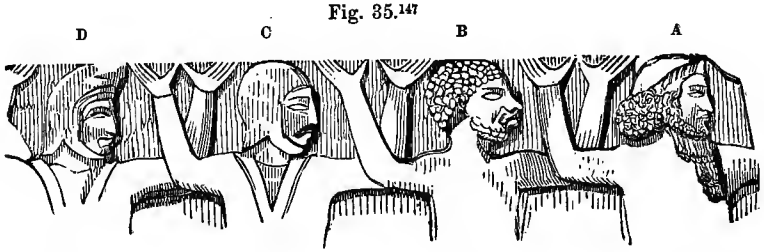
tional types of the inhabitants of the Persian empire; as we see plainly on the reliefs of the tomb of king Darius Hystaspes, which he had excavated in the mountain Rachmend, near Persepolis. The king is represented here in royal attire before the fire-altar, over which hovers his guardian angel, in the form of a human half-figure rising from a winged disc. This group, grand in its simplicity, is placed on a beautifully decorated platform, supported by two rows of Caryatides, sixteen in each row, representing the four different nationalities subject to this king,—besides the ruling Persians, who occupy a more distinguished position, flanking the composition on both sides, and typified by three spearsmen of the royal guard, and by three courtiers who raise their hands in adoration.

This relief of the sepulchre of Darius in Persia, is one of the most valuable documents of ethnology, second in importance only to king MENEPHTHAH'S (SETI I.) celebrated tomb at Thebes recording four types of man.[146] We see here first the sculpture of a Chaldean, stand-

Fig. 35.[147]



ing for Assyria and Babylonia; it is so striking that it cannot be mistaken. Next to the Chaldean stands the negro for the Egypto-Æthiopian empire added by Cambyses to the Persian. It was on the Nile that Persia became first acquainted with negroes, and therefore chose them for the representatives of Africa; though the empire of the Achæmenidæ, ceasing in Nubia and the western Oases, never extended over Negro-land, or the Soodàn proper. The third supporter of the platform can be none else than the representative of the Scythian empire of Astyages. His peculiarly-round skull, which still characterizes the pure Turkish and Magyar blood, designates him as belonging to a Turanian race. The last figure in the group wears the Phrygian cap, and personifies the Lydian empire of Crœsus, of which Phrygia, on account of its rich gold-mines, was the most important province.

Thus, in the rock-hewn tomb of Darius, (about 490 B. C.) at a time

[146] *Types of Mankind*, p. 85, fig. 1; and pp. 247–9.

[147] TEXIER, *L'Arménie et la Perse*, II., pl. 126, "Persépolis—Tombeau dans le roc."

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when Greek art was still archaic, Persian sculpture preserved *five* characteristic types of mankind in an admirable work of art, as evidences of the constancy of the peculiar cast of features of human races. The monumental negro resembles the negro of to-day; the Arian features of king Darius and his guards are identical with those we meet still in Persia and all over Europe; the Turanian (or Scythian) bears a family resemblance to many Turks and Hungarians; the identity of the Assyrian and modern Chaldean physiognomy has been mentioned and proved above; and the Phrygian represents the mixed population of Asia Minor, a modification of the Arian type by the infusion of foreign blood—Iranian, Scythic, and Shemitish interminglings.

Persian art, as a branch and daughter of the Assyrian, never rose to a higher development than under Darius and Xerxes. The dissensions and the profligacy of the royal house checked the progress of art, which remained stationary until Alexander the Macedonian destroyed the independence of the empire, and tried to *hellenize* the subdued Persians. His endeavors, continued by the first Seleucidæ of Syria, were not devoid of results; because, even when Persia recovered its independence and re-appeared in history as the Parthian empire, all its coins bear Greek inscriptions and imitations of Grecian types. We ought not to forget, notwithstanding, that the Parthians were probably not *Persians proper*, but an unartistical Turanian tribe, held in subjection by the earlier Persians under their Achæmenian kings, which, in its turn, revolting from the yoke, ruled the Persians for above four centuries.

Some specimens of a peculiar style of art have been lately discovered within the boundaries of the old Persian empire, viz: at Pterium and Nymphæ. They were published by Texier;[148] and it has been suggested that they might be Median. The bas-reliefs certainly present nothing to suggest any relation to the art of that race which originated the cuneiform writing; nor is a perceptible affinity conspicuous between them and the Egyptian style. Nevertheless, the artists who chiselled them knew of the productions of Greek genius. The breath of Hellenism has passed over them, as we perceive from the following male [36] and female [37] heads. They are, therefore, by many centuries posterior to the great Median empire. Still, it would be presumptuous to attribute them to any determinate nationality, since none of the highlands flanking Asia Minor, inhabited then by aboriginal tribes, were ever completely *hellenized;* although they were powerfully affected by the genius of Hellas, whose progress

[148] *Asie Mineure*, Pl. 61, 78,—"Bas-relief taillé dans le roc. L'Offrande"—et seq.

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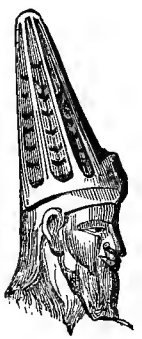
never was stopped by "barbarians," but only by the equally powerful and expanding Shemitic and Arian civilization. The national spirit of the Arians in Persia revived after five centuries of Greek and *hellenized*-Parthian rule. ARDESCHIR, the son of Babek, and grandson to Sassan, rose up in rebellion against the Parthian Arsacides, and broke down their supremacy in a long protracted war about the beginning of the third century of our era (A. D. 214–226: *obiit*, 240). With his triumph, Persian art revived once more; and although it inherited no connection with the traditions of Achæmenian art, it was again characterized by the peculiar richness of the flowing drapery. Sassanide art is at any rate equal, if not superior, to the contemporary style of Rome; indeed, the head of Ardeschir himself, [38] from a rock-sculpture at Persepolis, is a most creditable work of art, scarcely surpassed by any Roman relief of the same period. This "Indian summer" of ancient Persian art lasted but for a short time; it degenerated under the later kings, and was entirely destroyed by the Mohammedan conquest, in the seventh century. The Kur'àn was introduced by fire and sword, and became soon the undisputed law of the Persian race. Accordingly, we might expect the cessation of artistical life. But here we meet with a most striking evidence in favor of our assertion that art is the result of a peculiar innate tendency of some races, which cannot be crushed out by civil and religious prohibitions. As soon as the Persians recovered their political independence, and fell off from the Arab Khalifate of Bagdad, they continued to draw and even to carve human forms, though they never ceased to profess strict adherence to the Kur'àn. Their style

Fig. 36.



GOD FROM PTERIUM.

Fig. 37.

GODDESS FROM PTERIUM.

Fig. 38.

ARDESCHIR.[149]

[149] TEXIER, *Arménie*, 1852, ii., Pl. 148.

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of art changed now for the third time; but neither the instinct for art, nor its habitual practice, has ever yet been destroyed among the true Iranian race of Persia.

V.—THE ETRUSCANS AND THEIR ART.

THE Etruscans were a mongrel race, the result of the amalgamation of different tribes, partly Asiatic, partly European, both Italian and Greek. Their language was mixed, though it is still greatly disputed how far the Greek elements pervaded the aboriginal forms of speech. As to the origin of the Etruscans: the most probable opinion is, that Lydians from the ancient Torrhebis in Asia emigrated to Italy and became the rulers of the then little-civilized aborigines, who were either Pelasgic Umbrians, or a Celtic Alpine tribe, which had previously and gradually migrated southwards. They held the country from the Po to the Tiber, and extended even to southern Italy. Greek immigrants, principally Æolians from Corinth, settled among them at a somewhat later period, and the mixture of these nationalities produced the historical Etruscans. In regard to the details, the standard authors on Etruria differ in their opinions. Raoul-Rochette takes them for Pelasgi, modified by Lydians; whereas Niebuhr denies the Lydian immigration related by Herodotus; the Tyrrhenians being with him foreign conquering invaders, but not Lydians. Still, the monuments of Etruria bear evidence both to the early connection between Etruria and Lower Asia, and to the existence of an unartistic aboriginal population of Umbri, Siculi, &c.

This view is supported by a great orientalist, Lanci,[150] who distinguishes three periods of Etruscan literature:—1st. When the Phœnico-Lydian elements arrived in Italy; 2d., when the Greeks began to mix with it, after the advent of Demaratus; and 3d., when Grecian mythology, letters, and tongue, preponderated. Similar is that of Lenormant,[151] in perceiving three phases of civilization in Etruria —"une phase asiatique, une phase corinthienne, une phase athénienne." If, notwithstanding, we remember how, as late as 1848, the whole stock of words recovered from inscriptions amounted to but *thirty-three*;[152] and that,—besides a few names of deities, like ÆSAR, "God" (Osiris?),—the formula RIL AVIL "vixit annos," CLAN

[150] *Parere di* MICHAELANGELO LANCI *intorno all' Iscrizione Etrusca della statua Todina del museo Vaticano*, Roma, Aprile, 1837.

[151] "Fragment sur l'étude des vases peintes antiques, *Revue Archéol.*, May, 1844, p. 87.

[152] DENIS, *Cities and Cemeteries of Etruria*, London, 1848, pp. xlii–v, that is to say, such words as cannot be explained from Greek and Latin roots.

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"filius," and SEC "filia," comprised all now known in reality of the lost speech of the *Tyrrheni;* we may well exclaim with the prophet, "it is an ancient nation, a nation whose *language* thou knowest not."

Whatever be the pedigree of the Etruscans, they were a hardy and enterprising nation, full of energy and skill, ready to receive improvements from foreign populations, even if, in their institutions, they were rather conservative. History shows them as a free, aristocratic, and manufacturing nation, characterized by a marked practical tendency, by little idealism and feeling for beauty, but much ingenuity in applying art to household purposes and to the comfort of private life. They were, in fact, the *English* of antiquity,—but they had not the good luck of the British islanders to be surrounded by the sea, and thus to have enjoyed the possibility of maintaining and developing their independence without foreign intervention. Few dangers threatened the Etruscans from the north: they protected themselves sufficiently against the incursions of savage Gauls, by fortifying their towns, the cyclopean walls of which are still the wonder of the traveller. It was principally towards the south that they had to contend with powerful foes. The maritime states of Cumæ, Corinth, Syracuse, and Carthage, interfered with the extension of Etruscan naval enterprise, and prevented its full development on the Adriatic and on the Mediterranean. Still, the Etruscans were strong enough to defend their own coast, and to exclude the establishment of independent Greek and Punic settlements on the Tuscan territory. A more important and finally fatal enemy arose in their immediate vicinity, —Rome, with her population of hardy agriculturists, and a senate bent upon conquest and annexation. Accordingly, wars recurred from time to time, from the foundation of the city until 120 B. C., when the Tyrrhenian country was finally annexed to Rome. Nevertheless, the city on the Tiber had long previously felt the influence of the Etruscans in her institutions, laws, and religion. Etruria gave kings and senators to Rome. Her sacerdotal rites, her works of public utility, the dignified costume of official splendor, and apparently even that universal popular garb, the *toga*, were all of Etruscan origin.

There are principally three features in the history of Etruria, which had a peculiar influence on its art. Being of *mixed origin* themselves, the Tuscans displayed a greater receptivity of exotic influences, than more homogeneous nations, who feel always a kind of repulsion against foreigners. Being exposed to the attacks of the Gauls, *they had to live in towns;* and therefore commerce and manufacturing industry were of greater importance among them than agriculture. Lastly, *their history presents no epoch of great national triumphs*, ele-

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vating the patriotism of the people, and inspiring the poet and artist. Art being everywhere the mirror of national life, we find these peculiar features of the Tuscan history expressed in the paintings and sculptures of Etruria. They lack originality. The artists borrowed their forms of art from all the nations with whom their country came into contact. Idealism and a higher sense of beauty remained foreign to them; in consequence, they never reached the highest eminence of art. Under their hands, it became principally ornamental and decorative, mechanical; and, above all, practical and comfortable among these *obesos et pingues Etruscos*. Whilst temples and their propylæ are the principal objects of Greek architecture, the walls of the town, the bridge, the canal, the sewer, and the highway, characterize Tuscan art.

This Etruscan want of originality and peculiar receptivity of foreign influences extends not only to the forms, but even to the subjects of their paintings and sculpture. They rarely occupy themselves with their own myths and superstitions, but deal principally with Greek mythology as developed by the great Epics and even Tragic poetry of Greece.

All the artistical forms of Etruria were imported from abroad. Micali, in his *Monumenti Antichi*, and *Monumenti Inediti*, has published so many and such various ancient relics of Etruscan workmanship, that a three-fold foreign influence on Tuscan art can no longer be doubted, viz: Egyptian, Asiatic and Greek. Besides these, we find that the bulk of the nation must have clung to a peculiar kind of barbarous and ugly idols, intentionally distorted like the *patæci* of the Phœnicians. These deformed caricatures continued to be fabricated in Etruria to a rather late period:[153] they are an evidence of the fact that there was an unartistical element in the Tuscan nation, never polished by the Lydian and Greek immigration. The easy introduction of foreign forms of art shows likewise that there existed no higher national style in Etruria previous to the Tyrrhenian influences.

The most peculiar of all the foreign forms of art among the Tuscans is the *Scarabæus*, that is to say, the beetle-shape of their sculptured gems. They must have borrowed it direct from Egypt without any Greek inter-medium, since the scarab-form of gems is exceedingly rare in Greece, and not of so early a period as the Etruscan scarabæi. In Egypt this form was always national, being the most common symbol of the creative power of godhead. The Egyptian, beholding

[153] GERHARD, *Sformate immagini in Bronzo, Bulletino dell' Instituto*, 1830, p. 11; and *Etrurische Spiegelzeichnurgen*, Chap. 1.

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the beetle of the Nile with its hind legs rolling a ball of mud, which contained the eggs of the insect, from the river to the desert, saw in the scarabæus the symbol of the Creator, shaping the ball of the earth out of wet clay, and planting in it the seeds of all life.[154] The Egyptian artist often represented this symbol of godhead; and when he had to carve a seal, (the sign of authenticity by which kings and citizens ratify their pledged word and engagements,) he cut it on stone, which he carved into the shape of a beetle, as if thus to place the seal under the protection and upon the symbol of godhead, in order to deter people both from forgery and from falsehood. Placed over the stomach of a mummy, according to rules specially enjoined in the "funereal ritual," it was deemed a never-failing talisman to shield the "soul" of its wearer against the terrific genii of *Amenthi*. The Egyptian symbol, however, possessed no analogous religious meaning for the Etruscans when they adopted the form of the scarabæus: and even after they had abandoned it, they still retained the Egyptian *cartouche*, which encircles nearly all the works of Etruscan glyptic.

Besides the scarabæi, we find in Etruria several other Egyptian reminiscences,—head-dresses similar to the Pharaonic fashion,[155] and even idols of glazed earthenware, entirely of Egyptian shape; for instance the representation of KHONS, the Egyptian Hercules;[156] of ONOURIS, the Egyptian Mars; or of sistrums and cats,[157] all of them most strikingly Egyptian in their style.

A certain class of black earthenware vases decorated with stamped representations in relief, many of the earliest painted vases, some gems mostly of green jasper, and the marble statue of Polledrara now in the British Museum, are by style and costume so closely connected with the monuments of Assyria, that it is now difficult to doubt of a connection between Etruria and inner Asia. The disbelievers in the Lydian immigration explain the Oriental types of Etruria by intercourse with Phœnician merchants, and by the importation of Babylonian tapestry, — celebrated all over the ancient world, — which might have familiarized the Etruscans with the Assyrian style and type of art. But the use of the arch in Tuscan architecture finally disposes of this explanation, since we learned that the arch was known to the Assyrians, but not to the early Greeks. It was introduced into the states of Hellas at a rather late period, about

[154] HORAPOLLO NILOUS, *Hieroglyphica*, transl. CORY, London, 1840; — "How an only begotten," § X, pp. 19–22.

[155] *Monumenti dell' Instituto*, vol. 1, pl. XLI. fig. 11–12.

[156] MICALI, *Monumenti Antichi*, tav. 45–46.

[157] *Idem*, *Monum. Inediti*, tav. I, II, XVII, L.

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the times of Phidias. Had this architectural form been brought to Etruria by the Phœnicians, it would have reached Greece at the same time as Italy, or earlier; whereas the contrary is the case. The earliest architectural arch we know is in Egypt, and belongs to the reign of Ramesses the Great.[158] Monsieur Place and Dr. Layard have discovered brick arches in the palaces of SARGON and his successors in Assyria, and on the Ninevite reliefs we often see arched gates with regular key-stones. Etruria was the next in time to make use of the arch. The Lydians, neighbors of Assyria, must have been acquainted with arched buildings, and in their new home made a most extensive use of this architectural feature for gates, and for sewers; of which the celebrated *Cloaca Maxima* of Rome, built by the Tarquinii, is the most important still-extant example. It is, therefore, rather amusing to perceive that Seneca,[159] having before his eyes this monument of his country's early greatness, thoughtlessly alleges that Democritus, the contemporary of Phidias, *invented* the principle of the arch and of the key-stone. Indeed, the Romans were no great critics: Seneca extracted the above-mentioned fact (!) from the Greek author Posidonius, and trusted his Grecian authority more than his own knowledge. Democritus was probably the man who introduced the arch from Italy into Greece, and got the credit of its invention among his vain fellow-citizens.

Of all the foreign influences on Etruscan art, the Greek was the most powerful. It soon superseded both the Egyptian and the Oriental types. But here we ought not to forget that many of the Italic colonies of Græcia Magna came from Asia, not from European Greece, and that the art of Ionia proper and of the neighboring countries exercised at least an equal influence on the Italiots with that of Greece proper. Our histories of art, hitherto, have not paid sufficient attention to the development of art among the Asiatic Greeks; although the monuments discovered and to a certain extent published by Sir Charles Fellowes, Texier, Flandin and others, yield ample material for a comprehensive work on the subject, which might probably show that not only the poetry, history or philosophy, of the Greeks, but even their art, had its cradle in Asia Minor. At any rate, the numerous colonies of Miletus, Phocæa, Heraclia, Cyme, and other states of Ionia and Æolis, carried the principles of Greek art further than Greece proper.

As to the Greek influence on Etruria, we have to distinguish two if not three periods: the early Asiatic Ionian, which introduced the

[158] SIR GARDNER WILKINSON, *Ancient Egyptians*, v. 1, p. 18, & II, p. 300: — *crude brick* arches are, however, certainly as old as THOTMES III.

[159] *Epistol.* 90.

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rigid archaic style of the Tuscan bronze-figures;[160] the later Doric style, carried to Tarquinii from Corinth by Demaratus, which characterizes the potteries of Italy; and perhaps a still later Attic style, chaste and dignified, such as we admire on the best Etruscan vases. Inasmuch, however, as all the names of the artists inscribed on the vases, the alphabet of the inscriptions, and the style of the drawing, are exclusively Grecian, there are many archæologists who do not attribute them to Etruria, but believe they may have either been imported from Greece, or manufactured in Etruria by guilds of Greek artists who maintained their nationality in the midst of the Tuscans.

The national-type of Tuscan physiognomies is rather ugly: entirely different from the Egyptian, Shemitic, Assyrian or Greek cast. It is characterized by a low forehead, high cheek-bones, and a coarse and prominent chin. The following wood-cut [38] shows two archaic heads from an embossed silver-relief found in Perugia,[161] now in the British Museum. The next figure is a fragment of a statue, [39] sculp-

Fig. 38.

ETRUSCAN HEADS.

Fig. 39.

VULCIAN HEAD.

tured out of a porous volcanic stone called *Nenfro*. It was found at Vulci, and is remarkable for the Egyptian head-dress and Etruscan features.[162] The head of Eos, or *Aurora*, [40] from a celebrated bronze now in the British Museum, found at Falterona in the province of Casentino,[163] gives a poor idea of the Tuscan feeling for beauty; still, the liveliness of the movement and the excellent execution of the statuette cannot but excite our admiration. Another head [41] of a bronze figure in the British Museum strikingly exhibits the Etruscan

[160] The Etruscan bronzes closely resemble the archaic Greek figures: still, the peculiar Etruscan physiognomy, and the national fashion of shaving the beard, distinguish them from the early Greek monuments.

[161] MILLINGEN, *Ancient Inedited Monuments*, III, pl.

[162] *Monumenti dell' Instituto*, I, pl. XLI; and LENOIR, *Tombeaux étrusques*, *Annali dell' Instituto*, 1832, page 270.

[163] See also MICALI, *Mon. Inediti*, pp. 86–98, tavola XIII, 1 and 2.

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type of features. These four specimens suffice to show the peculi-

Fig. 40.

Eos.

Fig. 41.

Etruscan.

arity of, and the difference between, the art of Etruria and that of the surrounding nations. It occupies a higher rank than the art of Phœnicia, but it is inferior to the Greek, since it remained dependent upon foreign forms, and was unable to acclimatize itself thoroughly in upper Italy.

VI.—THE ART OF THE GREEKS.

It was the Greeks, who, among the Japetide nations, occupied the most important place in the history of mankind. Though comparatively few in number, they have, during the short time of their national independence, done more for the ennoblement of the human race, than any other people on earth. It was among the Greeks that the genius of freedom, for the first time in history, expanded its wings in highly civilized states, even under the most complicated relations of aristocracy and democracy, of unity, suzerainty and federalism. Under the rule of liberty, the Greek mind dived boldly into the sea of knowledge, and along with the treasures of science secured that idea of plastical beauty and measure, which pervades all the Hellenic life so thoroughly that even virtue was known amongst that gifted race only as καλοκαγαθία; that is to say, beauty and goodness. The power of Greek genius manifested itself not only by its intensity when applying itself to science and art, but likewise by its expansion and fertility. All the shores of the Euxine, of lower Italy, Sicily, Cyrene, and considerable portions of the Gaulish coast, were studded with Greek colonies, proceeding from the mother

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country like bee-swarms, not in order to extend its power, but to grow up themselves, and to prosper freely and independently. Within the same period, Macedonia, Epirus, and the inner countries of Asia Minor, up to the confines of the Shemites, were pervaded by Greek influences in art and manners; and when at last exhausted by their unhappy divisions, the Greeks lost their independence, the hellenic spirit still maintained itself in art and science; and, carried by Macedonian arms all over the Persian empire and Egypt, continued to live and to thrive among nations of a high indigenous civilization. Greece, conquered by Rome, as Horace says, subdued the savage conqueror, and imported art and culture into the rude Latin world. Absorbed ethnically by amalgamation with Roman elements, Hellenism survived even the political wreck of Rome, and rose to a second though feeble development among the mongrel Byzantines, who, well aware that they were not Greeks, although speaking the Greek language, never ceased to call themselves Romans. Even now their country is called Roum-ili, by the Turk, and they call their own language Romaic. Down to our own days, Greek genius exerts its humanizing influences over the most highly cultivated part of the world, constituting the foundation of all the most comprehensive and properly human education.

The national character of the Greeks, as expressed in their history, is fully developed in their art, which from its very beginning is characterized by freedom and movement, restricted by the most delicate feeling for measure, and refined by a tendency towards the ideal, without losing sight of nature. Progressive in its character, Greek art often change its forms of expression,—we may say from generation to generation,—with a fertility of genius, easier to be admired than explained. In Egyptian, Assyrian, and Persian sculpture, we noticed successive changes in the details, but scarcely any real and substantial progress. Among all those nations, the rudiments of art were not materially different from their highest development; whilst in Greece we are able to trace the history of sculpture from comparative rudeness to the highest degree of eminence—human perfectibility, under the rule of freedom, has never been more gloriously personified than in the Greek nation.

The question of the origin of Greek art has often been raised in antiquity as well as in modern times, but the answers are altogether contradictory.

The celebrated Roman admiral Pliny, a "dilettante" who compiled his Natural History indiscriminately from all the sources accessible to him, preserved the charming story of the Corinthian girl, who drew the outline of the shadow of her departing lover's face on the

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wall, and mentions it as the first artistical attempt. Her father, he continues, filled the outline up with clay, and baking it, produced the first relief. We can scarcely doubt that this pretty tale is derived from some Greek epigram, which was popular in the times of Pliny, for connecting art with love; but it cannot satisfy criticism. Winckelman, the father of scientific archæology, deduced the Greek statue *à priori* from the Herma or bust; forgetting that Hermas and busts, where the head has to represent the whole figure, belong to the later, reflecting epoch of sculpture. No little boy ever tries to draw a head alone, nor can he enjoy its representation; he looks immediately for its complement, the body, without which he thinks it deficient. Indeed, busts and Hermas remained unknown to the national art of Egypt and Assyria; moreover, the earliest sculptural works mentioned by Greek authors are statues, not busts. So are all the Palladia and Dædalean works, the outlines and general features of which are known from their copies on vases, coins and gems.[164] The types of the earliest coins are figures, though soon succeeded by heads. Steinbüchel, with apparent plausibility, derives Greek art from Egypt. Still, it is rather going too far when he connects its rudiments with the mythical Egyptian immigration of Cecrops to Attica, and of Danäus to Argos, hypothetically placed about 1500 B. C., when Egyptian art was highly developed. Whatever be the truth about the nationality of Cecrops and Danaus, so much is certain, that imitative art was unknown in Greece for at least seven centuries after the pretended date of their immigration; since the earliest records of works of art carry us scarcely beyond the end of the seventh century, B. C., and the earliest works extant do not ascend beyond the first half of the sixth century. Indeed, Greece and Grecians existed a long time before they possessed statuaries.[165] (Plutarch, in *Numa*, says that images were by the learned considered symbolical, and deplored. Numa, the great Roman lawgiver, forbade his people to represent Gods in the form of man or beasts; and this injunction was followed for the first 470 years of the republic.[166]) Another opinion, that Greek art is a daughter of the Assyrian, is likewise often hinted at; but, as already mentioned, the earliest works of Greek sculpture are anterior, by a score of years, to the bloom of the Lydian empire, by which alone Greece could have become acquainted with the art of inner Asia. But though we cannot connect the rudiments of Greek sculpture either with Egypt or Assyria

[164] PROF. EDWARD GERHARD published many of them in his "*Centurien.*"

[165] PAUSANIAS, lib. VIII., and XXII.; and lib. IX.

[166] VARRO, *apud August. de Civit. Dei*, lib. IV., c, 6:—R. PAYNE KNIGHT, *Symbolical Language of Ancient Art and Mythology*, London, 1818, p. 71.

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and Babylon, we must still admit the early influence of Egyptian (Saitic) and oriental art over Greece. A peculiar school of ancient sculpture, to which the invention of casting statues is attributed, developed itself in the island of Samos between the 30th and 55th Olympiad (657–557 B. C.) extending from the time of Psammeticus of Egypt to the epoch of Crœsus of Lydia, and Cyrus of Persia; and history contains many evidences of the intercourse of the Samians with the kings of Egypt and Lydia, and with the merchants of Phœnicia. The types of the coins of Samos,—the lion's head and bull's head,—are similar to the Assyrian representations. As to the Egyptian influence, Steinbüchel justly lays peculiar stress upon the rude archaic type of the silver coins of Athens with the helmeted head of Minerva, which was persistently retained by the republic even in the times of her highest artistical eminence. It certainly shows the eye, represented in the Egyptian front-view, whilst the angle of the lips is raised, and smiles in the later pharaonic manner. All the earliest coins and bas-reliefs of Greece are characterized by the same peculiarity, and some of them retained even the Egyptian head-dress in slightly modified forms. The anecdote preserved by Diodorus Siculus, concerning Telecles and Theodorus of Samos,(who are said to have made a bronze statue in two halves, independently of one another, which upon being joined were found to agree perfectly),was likewise explained by the invariable rules of the Egyptian canon;[167] though, according to our views, it has nothing to do with Egypt, and owes its origin probably to the traces of chiselling that removed the seam of the cast all along the figure, and which being of a different color from the unchiselled surface of the statue, was mistaken for ancient soldering.

The indubitable connexion of Greece with Egypt, under the Saïte dynasty, could not fail to have great influence on art. The Greeks gained from that quarter their acquaintance with the different mechanical processes of sculpture, carving, moulding, casting, and chiselling: though, too proud to acknowledge their debt to foreigners, they attributed the invention of the saw and file, drill and rule, to the mythical Cretan Dædalus, or to the Samian Theodorus, the elder; at any rate, to artists natives of the Archipelago in proximity with Egypt. It seems, indeed, that the opening of Egypt gave a sudden impulse to sculpture and painting among the Hellenes: for nearly all the earliest works mentioned by the ancients belong to this period, with the exception, perhaps, of the casket of Cypselos, and of the

[167] Diodor., i, 98:—60 f.:—Müller, *Archæologie*, § 70, 4.

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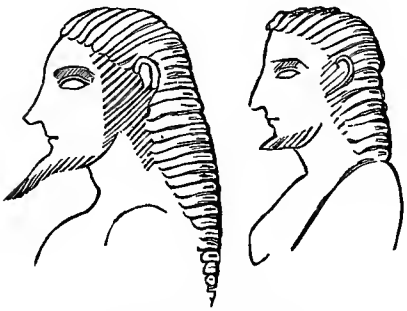
golden statue of Jupiter, dedicated by Cypselos at Olympia.[168] The athletic statues of ARRHACHION[169] (53 Olympiad), PRAXIDAMAS (58 Ol.), and RHEXIBIOS (61 Ol.), at Olympia, of CLEOBIS and BITON, at Delphi[170] (about 50 Ol.), of HARMODIUS and ARISTOGEITON, at Athens (67 Ol.), all works of the Samian school, (and among them the works of art dedicated by Alyattes and Crœsus to the Delphian temple), were the result of the intercourse with Egypt: and, from the description of some of them, as for instance, the statue of Arrhachion, we see that their rigid attitude must have resembled the Egyptian statues. Still, whatever be the foreign influences on the beginnings of Greek art, nobody will ever take the most archaic Greek relief for a specimen of Egyptian or Assyrian art. Though such Greek rudiments are less elaborate than the royal works of Thebes, Nineveh, or Persepolis, they have a peculiar national style unmistakably Greek. The earliest of all the existing Greek marble reliefs is the fragment of a throne found in Samothrace, now in the Louvre; [41] which certainly

Fig. 41.



SAMOTHRACIAN RELIEF.

Fig. 42.

MINERVA.

belongs to the beginning of the VIth century B. C.[171] and is probably contemporaneous with the Panathenæn vases[172] characterized by the figure of [42] MINERVA. Both of them are rude, and influenced by the Egyptian style. Still, the long and straight nose, the prominent chin, and the absence of individualism in the representation, are all as distinct from Egypt as from Assyria.

[168] OTTFRIED MÜLLER tries to prove that both these archaio sculptures must belong to a period posterior to *Cypselos*.

[169] PAUSANIAS, vi., 18, 5.

[170] HERODOT. 1 31.

[171] MILLINGEN, *Ancient Inedited Monuments*, v. iii., 1.

[172] *Idem.*, i. 1.

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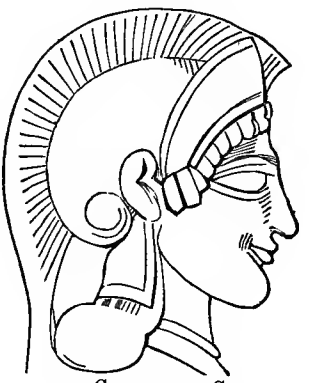
The sense of beauty was not yet sufficiently developed among Greek artists; but it is remarkable that even in its rudiments Greek art, unlike the Egyptian,[173] had nothing to do with portraits; it was not the king, but the hero and the god who became the objects of the artist's creation. Not less striking is the complete absence of the landscape in Grecian art. The human form and animated nature are for the Greek the exclusive object of representation; accordingly, he personifies day and night, the sun and the moon, time and the seasons, the earth and the sea, the mountains and the rivers; he gives them the features of men; but the human figure he draws is always a type of the race, not the effigy of an individual.

The peculiar archaic type, characterized by the elongated form of the nose, and the prominent and somewhat pointed chin, maintained itself up to the time of Phidias, preserving the characteristic features of the early Hellenes. We find the same profile on the coins of Dorian and of Ionian States, in Sicily, in Attica, and in Asia Minor. The following heads will sufficiently explain our statement. Fig.

Fig. 43.

ATHENIAN MINERVA. (*Pulszky Coll.*)

Fig. 44.



CORINTHIAN COIN.

43 is the type of the Athenian tetradrachms. Fig. 44 is the enlarged copy of a Corinthian silver coin. The following wood-cut is taken from the coins of Phocæa, in Ionia [45]; whilst Fig. 46 is copied from one of the statues on the pediment of the temple of Ægina, dedicated to Jupiter Panhellenius—the god of all the Greeks—soon after the battle of Salamis (Olymp. 75).

[173] [The art of each represents the instinctive genius of the two people, as diverse in intellect as in blood.

"Ægyptiaca numinum fana plena plangoribus,
Græca plerumque choreis"—

says APULEIUS (*De Genio. Socrat.*); which is just the difference between Old and New England puritanism and South European catholicity.—G. R. G.]

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Fig. 45.

PHOCÆAN COIN.

Fig. 46.

ÆGINA STATUE.

The mythical victory of the united states of Hellas over the Trojans, supported by all their Asiatic kin, represented on the pediment of this temple, was intended to symbolize the recent victory of the Greeks over the Asiatic host of Xerxes.

One generation more carries us at once to the glorious time of Pericles and Phidias, to the highest development of ideal grandeur, as seen on the sculptures of the Parthenon, never surpassed by human art,—the beauty, pride and triumph of youthful Greece lives in them. We might have taken one of the Parthenon fragments in the British Museum, which, although the nose is mutilated, would give an idea of the genius of Phidias. But artistic eminence was not confined to Attica alone; in Argos and Sicyon, in Sicily and in Græcia Magna, in Ionia and Cyrene, sculptors and painters grew up second to none but to Phidias. For more than one century, down to the time of Alexander of Macedon, all the intestine wars, revolutions and temporary oppressions, could not arrest the majestic flow of Greek art, characterized by freedom and ideal beauty. The head of a child [48] from a Lycian relief,[174] and of a warrior, [49] from a monument of Iconium[175] (Koniah) in Lycaonia, show that Hellenic art flourished even in those countries where the bulk of the nation was not Greek, though we ought not to forget that all those monuments were evidently the work of Hellenic artists; for, as Cicero justly remarks, all the lands of the "barbarians" had a fringe of Greek countries where they reached the sea.[175] The sculptures of Lydia,

[174] TEXIER, *Asie Mineure*, III, pl. 226.

[175] TEXIER, *Arménie*, II, pl. 84.—1.

[176] *De Rep.* II, iv, — *Coloniarum vero, quæ est, deducta a Grajis . . . . quam unda non adluat? Ita barbarorum agris quasi adtexta videtur ora esse Græciæ.*

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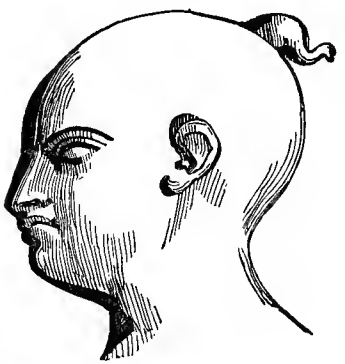
and of all the countries of Asia Minor, differ little from the monuments of Greece proper.

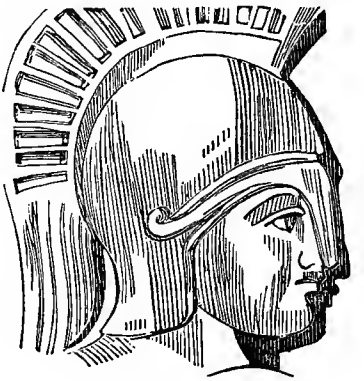
The type of the Sicilians and of the Italiots is somewhat more diverse; principally characterized by the full and round chin of the

Fig. 48.



LYCIAN CHILD.

Fig. 49.



LYCAONIAN SOLDIER.

females, as seen in the following wood-cut [50] of Proserpina, taken from an intaglio in cornelian, which belongs to my collection. We sometimes find the same peculiar chin even now among the females of Calabria and Sicily, but especially on the island of Ischia, where, according to a tradition, the Greek blood of its inhabitants was scarcely mixed by foreign intermarriages.

Fig. 50.

PROSERPINA.
(*Pulszky Coll.*)

One feature, sufficiently explained by the institutions of Greece, is common to all these monuments of Hellenic art, viz: the absence of *portraits*, — individuality being merged into the glorification of the human form by a purely ideal treatment. Just as in life the idea of the State absorbed the interests and even the rights of the individual, so individuality was ignored in the art of Greece; we never meet with portraits during all the time of Greek independence; for even the representations meant to be portraits were ideal. ALCIBIADES, according to Clemens Alexandrinus,[177] became a Mercury, and PERICLES looked a demigod. A rock-relief on a tomb in Lycia, at Cadyanda, the cast of which is

[177] *Admonit. adversus gentes*, p. 35.

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now in the British Museum,[178] inscribed with the historical names of *Hecatomnos, Mesos, Seskos, &c.*, contains no portrait, but only ideal figures. The CRŒSUS of the magnificent vase of the Louvre might be taken for a Jupiter, were it not designated by the name. It was not before the time of Alexander the Macedonian that real portraits began to be made. Lysistratus, brother of the great sculptor Lysippus, was in Greece the first who made a plaster-cast of the face of living persons, and who, according to Pliny,[179] made real likenesses, whilst his predecessors had tried to make them rather beautiful than faithful. Pliny's testimony is fully borne out by the remaining monuments of art belonging to the period of Alexander: they show during the life of the great king some marked attempts at individuality, though idealism is not yet excluded from the portrait. The head of the conqueror of Persia, on his own coins, is scarcely distinguishable from the type of his mythic ancestor Hercules. Under his successor, Lysimachus, the portrait of Alexander on the Macedonian coins is by far more individual. The beautiful bust of Demosthenes[180] [51] in the Vatican, though it be the work of a later age, is certainly a copy of a bust contemporaneous with the last great citizen of Greece. It exhibits the peculiar features and lisping mouth of the eloquent unfortunate patriot; still, the upper part of the head is undoubtedly ideal. A classical cornelian in my collection, with the intaglio head of Demetrius Poliorcetes [52], shows the efforts of some artists of the

Fig. 51.

DEMOSTHENES.

Fig. 52.

DEMETRIUS POLIORCETES, (*Pulszky coll.*)

Macedonian period to blend idealism with individualism. This king's heroic beauty made the task easier; but as, in those times, a portrait always implied a kind of apotheosis, a bull's horn was

[178] *Synopsis* of the British Museum, Lycian Room, Nos. 150–152.
[179] XXXV, 44.
[180] VISCONTI, *Iconographie grecque*, Pl. 29, fig. 2.

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added to the head to designate Demetrius as the son of Neptune; whilst in order to combine the horn with the human features, the hair was carved stiff, reminding one of the rigidity of a bull's hair. Equally grand is the portrait of Perseus [53], the last king of Macedonia, on a cornelian cameo in the imperial library at Paris.[181] It so much resembles some ancient hero, that for a considerable time it was taken for an ideal head of Ulysses. Indeed, if we wish to get real Hellenic portraits, we must leave the territory of Greece, and seek for them among the more realistic nations pervaded by Hellenism, amid whom Greek art descended from the loftier heights of imaginative beauty, to tread the humbler paths of reality. Hitherto no actual portrait has been discovered belonging to the times of republican Greece. The following beautiful head [54] on an Asiatic silver coin, in the British Museum, which bears the simple inscription ΒΑΣΙΛΕΩΣ, (the coin) "of the king," is with the greatest plausibility attributed to the younger Cyrus: the die being sunk by some Ionian Greek at the time when this Satrap of Asia Minor rose in rebellion against his brother Artaxerxes, and assumed the title of *the* king. Still, the features can scarcely be fairly taken for a portrait; they are altogether ideal, in fact the embellished representation of the purest Arian type.

Fig. 53.

PERSEUS.

Fig. 54.

CYRUS THE YOUNGER.

The aboriginal barbarism of the remoter provinces of the Macedonian empire,—which was strongly modified, but never entirely overcome by the civilization of the conquerors,—renders the history of Hellenism in Asia, after the death of Alexander, most instructive. It is recorded on the relics of its art, especially on the coins of those Greek dynasties which were not surrounded by Greek populations. From the shores of the Euxine to the confines of India, they proclaim the supremacy of Greek genius. Still, Hellenism maintains its glory only there where a continuous, uninterrupted, influx of Greek elements keeps up the original blood and spirit of the con-

[181] MILLIN, *Monuments Inédits.*, 1, XIX; and Frontispiece to the *Bulletin archéol. de l'Athenæum Français* of June, 1855.

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querors, as for instance at the court of the Seleucidæ at Antioch, and of the Ptolemies at Alexandria. But here the degeneration of the royal houses could not destroy the fertility of Hellenic art; though in all the countries which were locally separated from Greece, Hellenism declined, and went over into barbarism so soon as the original Greek blood of the conquerors was amalgamated with, and absorbed by, native intermixture.

The coins of the kingdom of Bactria give the most striking illustration of this general rule. During the wars between the Seleucidæ and the Ptolemies, Theodotus, the governor of Bactria about the middle of the third century, B.C., declared himself independent of Syria, and founded the Greek dynasty of the Bactrian kingdom. About the same time the Parthians rose likewise in revolt against Antiochus Theos, and their success cut the Bactrians off from Greece proper, and even from the Grecians of Syria. Still, for about a century, Greek art beyond the Hindoo Kush did not decline.

The portrait of king Eucratides, king of Bactria, B.C. 170 [55], is, on the coins, a most creditable specimen of the taste and workmanship of his artists.[182] The isolation of the royal family, however, and its remoteness from Greece and from Hellenic influences, unavoidably brought about a relapse into barbarism. King Hermæus, lord of Bactria, B.C. 98 [56], on a coin in the British Museum, is, accord-

Fig. 55.

EUCRATIDES.

Fig. 56.

HERMÆUS.

Fig. 57.

KADPHYSES.

ing to his features, apparently a descendant of Heliocles; but the workmanship of the coin is heavy and coarse, and after seeing it we can scarcely be surprised at learning that his dynasty was soon superseded by rude Turanian invaders, who, having no alphabet of their own, maintained at first the Greek, and then adopted the Indian letters and language. In the execution of the types of their coins, they exhibit the rudest barbarism. King Kadphyses [57],

[182] For these and other examples, cf. WILSON, *Ariana Antiqua*, London, 1841.

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A. D. 50, had his name inscribed in Greek characters, on his coin, now in the British Museum; but the shape of his skull is Turanian, and the die-sinker must have been a half-civilized and probably half-bred Bactrian.

The series of the Arsacide coins is equally instructive, and leads to the same result. The Macedonian conquest destroyed at once the old Persian institutions and civilization; for, although Alexander assumed the royal insignia and maintained the court etiquette and provincial administration of Persia, yet both he and his courtiers remained Greeks, and *could* not transform themselves into Asiatics. His successors in Asia, the Seleucidæ, were still more averse to the old customs of the empire. They therefore removed their residence and the capital of the empire from Babylon, which at that time was still highly flourishing, so far west as Antioch; and tried to introduce Greek manners and despotic centralized-civilization, into the provinces adjoining the seat of dominion. The outlying Satrapies could not long be kept in subjection: and during the war between Antiochus Theos and Ptolemy Philadelphus of Egypt, *Arsaces* the Satrap stirred up the Parthians (256 B. C.), and at the head of his Scythian horsemen established the Parthian empire in opposition to the Greek Seleucidæ, who could not hold the country beyond the Tigris. But Arsaces did not go back to the Achæmenian institutions: he kept the Arian Persians in subjection, who from the time of Cyrus to Alexander had been the rulers of the Empire: his realm might easier be characterized as the revival of the Scythian empire of Astyages. The Parthians had no indigenous art of their own: according to Lucian, they were οὐ φιλόκαλοι, not friends of art,[183] and they had to borrow their artistic forms from their neighbors, just as the Shemitic nations had done before them.

While assuming the empire, they copied the Greek language and the Greek types of the Seleucidæ on their coins; and the portraits of ARSACES I. [58], B. C. 256, and of (Phraates I.) ARSACES V. [59], B. C. 190–165, on their silver coins in the British Museum, can scarcely be distinguished from Greek coins, as regards art: but the globular shape of the Parthian skull characterizes them sufficiently

Fig. 58.

ARSACES I.

Fig. 59.

ARSACES V.

[183] LUCIAN, *de domo*, 5.

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as not Hellenic. The conquest of the Syrian Empire by the Romans soon cut off the influence of Hellenism, and isolated the Parthians, whose art relapsed gradually into their original barbarism. The portrait of Arsaces XII. [60] (Phraates III.), B.C. 50–60, belongs to the beginning of the decline of art, though this king was a contemporary of Lucullus, Pompey, and Julius Cæsar. Arsaces the XIXth [61], (Vologeses IV., A.D. 196) exhibits a rudeness as if all the traditions of art had become forgotten. Still, he was a contemporary of the emperor Commodus. One generation after him we see a new, national, Arian art reviving in Persia under the Sassanides.

Fig. 60.

ARSACES XII.

Fig. 61.

ARSACES XIX.

Similar causes led to similar results in the Crimea, or as the ancients called it, in the Taurian or Cimmerian Chersonesus. Greek colonies from Heraclea and Miletus established themselves here among the aboriginal barbarians, and introduced art and civilization. Kings of these nations stood in friendly intercourse with Athens and Byzantium, who used to buy here their corn; until Mithridates the Great [62], king of Pontus, occupied the country (in 108 B.C.) which was to become the scene of his suicide. His portrait with the rich flowing hair, probably a copy from a statue representing him driving a chariot,[184] belongs to the wonders of Grecian art.

Fig. 62.

MITHRIDATES.

The Greek dynasty of Mithridates, in the Crimea, died off in the second generation with Asander; and was succeeded by a long series of indigenous kings, who, without any historical importance, maintained their sway down to the 4th century of our era. During their reign the Greek colonies of Panticapæum, Chersonnesus, Phanagoria, and Gorgippia, lost their Hellenic characters by the continuous immigration of barbarians; and all the traditions of art disappeared little by little among the half-breed inhabitants of the country,—until all Grecian blood, and with it, civilization, became absorbed by intercourse with the barbarians. The

[184] VISCONTI, *Iconographie*, ii. p. 182; note 4, Milan edition.

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following likenesses of Sauromates I. [63] (13–17 B. C.), Rhescuporis II. [64] under Domitian, and Rhescuporis III. [65], (212–219), from their coins in the British Museum, show the progressing rudeness of

Fig. 63.

SAUROMATES.

Fig. 64.

RHESCUPORIS II.

Fig. 65.

RHESCUPORIS III.

the representations, as well as the ebbing of Greek blood among a world of "barbarians," who, according to their features, belonged to the Slavonic race.

We might have given equally instructive specimens of the power and successive extinction of Hellenism in Thrace, Cilicia, Adiabene, —from the coins of those countries,—clearly proving that foreign art cannot maintain itself among unartistical races for any length of time, but must decline and cease so soon as the artistical race which imported it has become thoroughly amalgamated with, and has merged into, the bulk of the natives.

VII.—THE ART OF ROME.

AT the time of the revival of letters, when the attention of the scholars and princes of Italy was for the first time turned towards the remains of antiquity, all the statues and reliefs found in the peninsula were taken for Roman; and the antiquaries liked to explain any antique representation from Livy's history, and Ovid's metamorphoses. Grecian life was at that time nearly unknown; the study of Greek literature remained subordinate to that of Roman; and the works of antiquity were regarded as illustrations of the Roman classics. When, on the other hand, Winckelman and his philosophical school applied a deeper criticism to the relics of ancient art, treating them as equal in importance to the literary remains of classical antiquity, a reactionary notion spread all over Europe, that the Romans had no national art at all; and the father of scientific archæ-

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ology, Winckelman himself, says:[185] "I defy those who speak of the Roman style of art to describe its peculiarities or to determine its character." About this time it was proved with considerable display of erudition that fine arts were paid, but not honored, at Rome. Plutarch was cited, who says in sober earnest that, however we might admire the Olympian Jupiter, nobody would wish to become Phidias:[186] and Petronius also,[187] who, though speaking satirically, still expressed the common Roman feeling by saying, that 'a nugget of gold is more beautiful in the sight of God and man, than anything produced by those foolish Greeks, Apelles and Phidias.' Accordingly, it was believed that all the Roman sculptures are the work of Greeks, mostly freed-men, who lived in that capital of the old world. Such views were quite in keeping with the prevalent idea that Roman and Greek mythology was altogether identical. The monuments of Rome, however, were soon more thoroughly sifted; and a number of works of art were discovered at Pompeii, nearly all of them of Italian workmanship,—and that, between the emperor Augustus (under whom the town was rebuilt, after having been nearly destroyed by an earthquake), and the emperor Titus, under whom it was buried. Archæologists are, therefore, now enabled to fix more precisely the peculiarities and the character of the Roman style; although we must acknowledge that it is but a slight modification of Greek art. The original Romans had no feeling for fine art; they were the offspring of unartistical Umbrians and Sabines, with an admixture of Etruscans, who themselves possessed only a varnish of art superinduced. The few monuments which adorned republican Rome before the conquest of Græcia Magna,—the statues of the Capitol and the effigies of the kings—were without exception of Tuscan workmanship; so were their copper-coinage, their house-furniture, their earthenware and bronze vases. The Romans never vied with their neighbors either in mechanical skill or in artistical feeling; their only task was conquest and aggrandizement. When at last, by the accumulation of wealth, luxury and desire of display introduced a yearning for works of art, and that statues and pictures began to play an important part at all the public shows, triumphs and entertainments, it was easier to plunder the provinces and to fill Rome with the most celebrated treasures of art from the temples and market-places of Greece, than to get them executed by native artists on the Tiber itself. Still, the growing demand and failing supply at length fostered art at Rome; and though the artists were mostly of foreign extraction,—for it was not respectable for a Roman to be a

[185] *Cabinet Stosch*, p. 397. [186] *Vita Periclis.* [187] *Satyricon*, c. 88.

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sculptor — Roman nationality impressed its stamp on the coins and gems, reliefs and statues, marbles and bronzes, of the time of the Emperors. The principal features of Roman art are a somewhat ponderous dignity, and a want of poetical inspiration, but withal a close imitation of native, national truthfulness, and great regard for individuality; without that Greek freshness, freedom and harmony, which rouse in the beholder the consciousness of the divine nature of our soul. The composition of the Roman works of art is heavy, the execution often over-polished and empty. Whilst the Greek artist selected his subjects from mythology, the Roman liked to represent sacrifices, triumphal processions, military marches, battles, and "*allocutions*," marriage-feasts and other scenes of domestic life. The Greek idealized the features of great men; the Roman did not ennoble the ugliness of old Tiberius, the idiocy of Domitian, and the ferocious looks of Commodus and Caracalla. The Greek made scarcely any distinction, in sculpture, between the Greek and the barbarian—the same idealism surrounds them both, and assimilates them to one another; the Roman artist made a characteristical difference between enemies of Rome and the *civis Romanus*. Still, at the time of the Emperors, the Roman type itself had ceased to be constant. Citizenship having been extended to half a world, barbarians constituted the bulk of the army, and their equally-barbarian officers were raised first into the Senate, then to the imperial throne. Accordingly, the artists of Rome gave, on the whole, less importance to the type than to the costume of the foreign hostile nations, by which alone they differed from the mongrel Romans, who then represented a cosmopolitan amalgam of all the white races. On the great cameos of the time of Augustus and Tiberius, at Vienna and Paris (which, by their dramatic and picturesque composition of the groups, materially differ from Greek reliefs), the Pannonian and Vindelician prisoners have no individual features; nor is the statue of the "river Jordan" on the triumphal arch of the emperor Titus characterized by a Shemitic physiognomy; but, on the column and arch of Trajan, which contains the best of all the Roman works of art, we easily recognise the Dacian [70] whose features are perpetuated in the Wallachian of our days. In the dying gladiator of the Capitol, and on the sarcophagus of the Vigna Ammendola,[188] we see the Celtic Gaul [71] represented; and Mr. Göttling recognises an ancient German [69] in the statue of a prisoner which adorned a triumphal arch at Rome.

After the eclectic idealism prevalent under the reign of the Emperor Hadrian, we no longer find any endeavor to fix the

[188] *Monumenti Inediti dell' Instituto Archeologica di Roma*, 1, Pl.

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national peculiarities of foreign nations on monuments of art. The Teutonic Markomans on the columns of Antoninus, the Turanian Parthians on the arch of Septimus Severus, differ only by their costume from Dacians, and from the Roman soldiers who fight against them; and we must admit that the pharaonic Egyptian artists remained unsurpassed, even by Greeks and Romans, in the accuracy with which they observed and rendered the national type of all the tribes with which they happened to come into contact. The Assyrians and Persians were second in this respect to the Egyptians; still they were, on the whole, faithful enough, whereas with the Greeks any national peculiarity merged in the glorification of the human form: accordingly, Egyptians and Asiatics are by them drawn and sculptured with Hellenic features. The Roman is by far more truthful, but his art is short-lived. Before Augustus it is either Etruscan or Greek; after Septimus Severus it loses its national character, and step by step transforms itself into the Byzantine Christian. Two centuries carry us from the beginning of Roman art to its decay; its full bloom lasted only just for the score of years which embraces the reign of the emperor Trajan, since under Hadrian it lost its Roman features, and was swamped by an elegant and refined imitation of every style of art. About the same time that the imperial throne fell into the hands of Asiatic Syrians, of Africans, Arabs, and northern barbarians, Roman art became barbarous, and revived only when, about the time of Justinian and his successors, a new nationality, — the Græco-Byzantine — consolidated and crystallized itself under the influences of Christianity out of the mixture of all the races in the Roman empire.

The earliest authentic Roman portrait we know is the likeness of P. Cornelius Scipio Africanus [67].[189] All earlier effigies were either not portraits at all, — as for instance, the seven Tuscan statues of the kings, mentioned in the old authors, which stood before the Capitol, — or they are too indistinct to be of use for ethnology. This applies to the heads we see on the family coins of Rome, upon which the magistrates liked to perpetuate the memory of illustrious ancestors. None of these silver coins are anterior to the year 269 B. C; their size is small

Fig. 67.

Scipio Africanus.

[189] Visconti, *Iconographie romaine*, Paris, 1817, pl. III, fig. 2.

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and their workmanship little artistical. Besides, we know from Pliny that the family pride of the Romans cared more for the names than for the likenesses of their ancestors. The admiral complains that whilst the original wax-effigies represented the great men such as they really had been (they were probably casts of the faces of the deceased), a later age delighted in silver busts and in the workmanship of great masters (probably Greeks, and given to idealizing), without regard to the likeness. Pliny's complaint cannot apply to the portrait of Scipio, which is entirely individual, and of that stern and energetic cast which fully expresses the Roman character. Scipio may be taken for a good specimen of the Roman patrician type; for, at his time the aristocracy had not yet lost its national purity by the admixture of foreign blood. Not less characteristic is the head of Agrippa [68],—the friend, minister and son-in-law of Augustus, and maternal ancestor of the emperors Caligula, Claudius and Nero. Next to the Roman type represented by these two highly expressive portraits, let us consider the features of their enemies. Fig. 69 is the bust of a "barbarian" found in Trajan's forum, now in

Fig. 68.

VIPSANIUS AGRIPPA, (*Pulszky coll.*)

Fig. 69.

BARBARIAN.

the British Museum. Mr. Combe, in his description of the ancient marbles of the British Museum, after adverting to the feelings of rage, disappointment and revenge strongly marked in this face, inclines to believe that the head was intended to represent Arminius the German hero, who defeated Varus, and was defeated by Germanicus. Mr. Göttling, in an essay which has become very popular in Germany, attributes this head with specious reasons to Thumelicus, the fighter of Ravenna, son of Arminius. We therefore scarcely err in seeking the original Teutonic type in this excellent bust.

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The effigy of Decebalus, — prince of the Dacians [70],[190] is copied from a bas-relief originally belonging to the triumphal arch of Trajan, which by the addition of later patchwork has been transformed into an arch in honor of the emperor Constantine. The effigy is peculiarly interesting for its resemblance to the present Wallachians, true descendants of the ancient Dacians. This similitude between the Dacians and Wallachians is not exclusively confined to the cast of features nor to the costume, since we see on the reliefs of the column of Trajan, decorated with episodes of his Dacian campaign, that even this moral character has in one respect remained the same. The Romans seem to have been peculiarly struck by the ferocious treatment of prisoners among these Dacians; and they did not fail to represent the Dacian females, who tortured the disarmed and fettered Romans with raving brutality. The same feature recurred in the Hungarian war of 1849. Hungarian prisoners were tortured and murdered by the servile Wallachian population, — the females being always the most cruel among them.

Fig. 70.

Dacian.

We copy the head of a Celtic Gaul [71] from a sarcophagus found in the vineyard Ammendola at Rome. It is characterized by a peculiar Gallic necklace (torques), and by angular expressive features. For those of our readers who are less acquainted with the latest archæological researches we mention the fact, that the celebrated dying-Gladiator of the Capitol has been recognized to be a Celt, by Nibby[191] and by Raoul-Rochette.

Fig. 71.

Celtic Gaul.

This suggests a digression. Having given the earliest effigy of a Celt, we feel bound to copy likewise the features of a Norman, in order to put the principal ancestors of the inhabitants of the British Islands and of North America side by side. William the Conqueror lived in times and among nations unpropitious to art: his likeness, [72] therefore, cannot be peculiarly characteristic. It is taken from

[190] Bellorius, *Veteres Arcus*, Rome, 1690, Pl. 44, "Victoria Dacica."

[191] *Observazioni sopra la statua del Gladiatore moribondo: — Bulletin universel*, VIII, 1830, Aout.; compare Pliny, XXXIV, 19–24.

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the celebrated "Bayeux tapestry," [192] which is contemporaneous with this king, and attributed by tradition to the needle of Mathilda, queen of the conqueror. We are sorry that, together with the Norman type, we are unable to give a standard Anglo-Saxon effigy; but queen Mathilda does not seem to have remarked any peculiar difference between these two different nationalities; which, indeed, were of the same Scandinavo-Teutonic stock, —deduction made of the crowd of continental "flibustiers" who flocked to the colors of William, and who were Normans only by courtesy. Accordingly, king Harold, on the Bayeux tapestry, resembles his cousin William, with the slight exception, that he and his Anglo-Saxons wore mustachios, whereas the Normans are closely shaved.

Fig. 72.

WILLELM.

We continue. If it should now be asked what representations of the different nationalities of old have to prove about the original "unity" or "diversity" of the human race, we point to the unmistakable constancy of the types of the Egyptians, Assyrians, Wallachs, Negroes, Jews,—which are at the present day exactly such as were represented on ancient monuments,—and quote Dr. Prichard's words as to the importance of this fact: "If it should be found that within the period of time to which historical testimony extends, the distinguishing characters of human races have been constant and undeviating, it would become a matter of great difficulty to reconcile this conclusion with the inferences obtained from other considerations." [193]

To return to Roman art. Its importanoe stands in no relation to its real merits; it had a marked influence not only over early Christian sculpture, but even on mediæval and modern art. The works of Egypt, Assyria, and Etruria, belong altogether to the domain of archæology: modern artists disdain to be instructed by them, although they might learn from them that no style of art ever maintained itself on any other basis than nationality;—but they cannot emancipate themselves from Greek and principally from Roman influences. It belongs to the peculiarities of our age, that, whilst the purity of the plastical forms of the Greek statues could not fail to maintain their importance as models for statuaries, the Roman bas-relief continues to

[192] *Vetusta Monumenta*, Soc. of Antiquaries, 1822, vi. pl. 17.

[193] *Researches*, vol. iii. p. 2, edition of 1837.

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be imitated by our sculptors. They prefer its crowded, melo-dramatic groups, and the slight attempt at perspective (by raising the figures of the first plan and gradually depressing those of the second and third), to the graceful and simple Greek bas-relief, which is regulated by the artistic feeling of the sculptor, not by unartistical rules, —for instance, on the friezes of the Parthenon and of the Mausoleum. But, we ought not to forget that the sculptors of our day belong mostly to the neo-Latin nations: and being imbued with the spirit of Roman literature in preference to that of Greek, they feel instinctively a greater attraction towards the works of imperial Rome, than of republican Greece. So, too, does the bulk of the public; which appreciates much more the elegance of the statues of the Belvidere,—all of them works of the Roman period, — than the sublime beauty of the Elgin marbles, and the chaste drawing on some vases of Etruria and Grecia magna.

We have now, in the course of our ethnological survey of the history of art, arrived at the decay of the nations of classical antiquity, and reached the dawn of Christian art. We might easily pursue our researches down to the present day, through the Byzantine period, into the exclusively-national art of Italy, of Germany, of Spain, of France, of Belgium, and of Holland; but the characteristics of all these "schools," or rather nationalities, of painting, are so well known that it is not necessary to point out their diversity. The history of Christian art has often been written, and leads invariably to the result, *that art never developed itself but on a national basis; that close imitation of foreign forms never could impart life to art; and that eclecticism invariably leads to destruction.* Accordingly, the Academies of painting and sculpture, founded upon eclecticism, and rejecting art's national development, became always and everywhere the tombstones of art.

VIII.—ART OF AMERICAN NATIONS.

The time has not yet arrived for writing the history of the indigenous art of the Red-race. The monuments of the ante-Columbian civilization of America but little regarded in their country, are excessively rare in Europe. There are but few persons, either in the United States or the Spanish republics, who care for antiquity. The English race is too much occupied with the interests of the present, the Spanish too much disturbed with fears about the future, and therefore, both too unsettled and too uncomfortable, to devote much attention to the relics of an antiquity, which, however impor-

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tant for the philosopher and the historian of human civilization, has neither the charms and beauty of the Græco-Roman period, nor the historical interest of Egyptian, Assyrian, or early Christian art. The Red nations, of whose works we speak, are strangers to us; their civilization remained entirely unconnected with our history; and was too different from, and too inferior to, the development of the Japetides, Shemites, and Turanians. Even Chinese art has a greater chance of becoming the object of study, than the monuments of the mound-builders, of the Toltecs and Aztecs of Mexico and Central America, and of the Quichuas and Aymaras of Peru and the Lake of Titicaca. China is still a mighty empire; its civilization, however strange, cannot be ignored by us; and the monuments of Chinese art may facilitate a correct appreciation of the institutions, the religion and morals, of more than three hundred millions of men,—with whom, at the same time, traffic is profitable.

American art, on the other hand, is in no way linked to the present age. The refined amateur is repelled by the homeliness of most of the artistical relics, which the historian is, as yet, unable to connect with certain dates and personages. This is the reason why but very few persons care for Mexican, Central American, and Peruvian antiquity; and how it comes to pass, that among all the public Museums of Europe there are but two, the Louvre at Paris,[194] and the British Museum in London, which systematically admit American monuments into their treasuries of art. Of private collections I know but four: the Central American antiquities at the country-seat of the late Mr. Freudenthal, in Moravia (Austria), who fell a victim to his zeal in searching for antiquities in the tropical climate of Guatemala, and died soon after his return to Vienna; the extensive collection of Mr. Uhde at Handschuhsheim, near Heidelberg (Grand duchy Baden); and the two Mexican and Peruvian cabinets of MM. Jomard and Allier at Paris. M. Adrien de Longpérier published, in 1852, a *Notice* of the monuments exhibited in the American Hall of the Louvre, from which we see that it contains:

I.—680 relics of Mexican art, consisting of mythological statuettes, vases, gems, seals, utensils, instruments of music, weights and measures in volcanic stone, granite, basalt, terra-cotta, bronze, crystal, obsidian, jade, jasper, and wood.

II. — A few fragments from Palenqué.

III. — About three hundred statuettes and vases, implements and

[194] The Louvre has, within the last few years, acquired the Mexican Antiquities of M. Latour Allard, published in Lord Kingsborough's great work; received as gifts the equally important Peruvian antiquities of Mons. Augrand, together with the smaller collections of Messrs. Massieu de Clairval, Audifred, V. Schöelcher, and several other gentlemen.

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woollen fabrics of Peru, from Cuzco, Lambazequé, Quiloa, Bodégon, Arica and Truxillo.

IV.—Some twenty artistical objects from the Antilles and Hayti.

The collections of the British Museum have not yet been described and published. Huddled together as they are, in one of the smaller rooms, with Hindoo, Burmese, Japanese, and Chinese idols, and with the implements and curiosities of the South-Sea isles, they fail to attract the attention of the visitors. The Mexican Cabinet consisting principally in pottery, or in statuettes and reliefs in terra cotta, is one of the most extensive, and shows that the traditions of Aztec art long survived the conquest by Cortez; since we find a Spanish Viceroy moulded in clay by a native artist, who did not fail to distort the features of this Spanish hidalgo into the typical Mexican forms, no less than to give him their American cast of skull, and of the cheek-bones! The Peruvian antiquities are likewise exclusively of baked clay; some of them gems of native art. The Museum might easily enrich its American treasures; for, as I learned from the most reliable sources, many Peruvian gold and silver idols find their way into the Bank of England and the Royal Mint, where they are melted down; since they have no artistic, if great archæological, and still greater, it would seem, monetary value.

Many American Antiquities were published in the extensive, and more or less costly works, of Kingsborough, Humboldt, Lenoir, Warden, Tschudi, Rivero, Waldeck, Catherwood, d'Orbigny, Stephens, Norman, Brantz Mayer, Bartlett, and Squier; but, failing to interest the public in the same way as Asiatic and European antiquities, they remained unknown beyond the circle of some ethnological scholars, so that few persons are aware of the extent and the artistical importance of the Monuments of America. We have, in the following wood-cuts, selected the most characteristic and best sculptured specimens of the ante-Columbian art of the new world, in hope that they may become the means of exciting a greater interest for them on both sides of the Atlantic. As it is the object of illustrations to instruct by view, as well, and often more than by explication, we add but few words to them.

The great majority of the ancient monuments of America will forever remain unconnected with history,[195]—mysterious relics of a civi-

[195] [I perceive that an anonymous "viator" advertises in the *National Intelligencer* (Washington, D. C., 18th October, 1856), a forthcoming volume, wherein "more than twenty gentlemen, embracing the bench, the bar, the *clergy*, and members of the medical profession, have come forward"—all in Western Virginia, too—and are actually going to vouch for the indubitable authenticity of that "canard"—so famous, among archæologists, as Mr. Schoolcraft's Ohio pebble, engraved in 22 different alphabets at "Grave Creek *flat!*"

To facilitate its reappearance in good society, no less than to increase the receipts of

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lization which they alone record and expound. Mexican antiquities, however, will soon receive an additional importance by the publication (as we learn from his friend Mr. E. Geo. Squier) of M. Aubin, the French savant who has devoted a life of study to the researches on the Aztec language and literature; having, by a residence of thirteen years in Mexico, and by the lucky discovery of the collections and MSS. of Botturini, become able to obtain all the materials and the information for deciphering them, so as to elucidate the history of the Aztec empire previous to Cortez. A few years hence, the ante-Columbian history of Mexico will be as accessible to us as the early annals of any European nation; for hieroglyphical documents are not wanting which contain this information: whilst the researches of Botturini, which in the past century were cut short by the Spanish Inquisition, have been now resumed by M. Aubin; and, in his hands, have afforded the key for reading these sealed books.[196]

The hunter tribes of America evince no feeling for plastical beauty; yet withal, like the Turks and the Celts, they have a considerable talent for decorative designs, and some perceptions of the harmony of colors. The originality and ornamental combination of their beadwork and embroidery is sufficiently known, but they always fail in rendering the human form. Far higher was the civilization of that race which preceded them in the trans-Alleghanian States. We call

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that "*Museum*," I give this announcement a wider circulation than the threatened *book* is destined to obtain, by referring the curious to SQUIER'S "Observations on the Aboriginal Monuments of the Mississippi Valley," New York, 8vo., 1847, pp. 71–9 (Extract from the *Transactions of the American Ethnological Society*, vol. ii.); and to *Types of Mankind*, pp. 652–3. — G. R. G.]

[196] Among recent articles which show how this new school of American archæologists augments,—consult SQUIER, "Aztec Picture-writing" (*New York Tribune*, Nov. 24, 1852):—BARTLETT, "The Aboriginal Semi-civilization of the Great California Basin, with a Refutation of the popular theory of the Northern Origin of the Aztecs of Mexico" (*New York Herald*, April 4, 1854):—AUBIN, "Lang. Americaine. Langue, Littérature et Écriture Mexicaines" (*Encyclopédie du XIXme Siècle*, Tome xxvi., Supplément, pp. 500–7):—SQUIER, "*Les Indiens Guatusos du Nicaragua*" (*Athenæum Français*, 22 Décembre, 1855):—PRISSE D'AVENNES, "Honduras — Amérique centrale (*L'Illustration*, Paris, 8 Décembre, 1855):—BRASSEUR DE BOURBOURG, "Letter from Rabinal—Department of Vera Paz" (*London Athenæum*, Dec. 8, 1855):—Idem, "Notes d'un Voyage dans l'Amérique centrale—Lettre à M. Alfred Maury" (*Nouvelles Annales des Voyages*, Paris, Août, 1855):—with SQUIER'S critique on said letter (*Op. cit.*, Déc. 1855):—TRÜBNER, "The New Discoveries in Guatemala," and "Central American Archæology" (*London Athenæum*, 12th Jan., and 31st May, 1856); since enhanced in interest by DON JOSÉ ANTONIO URRUTIA'S "Discovery of additional Monuments of Antiquity in Central America" (*Ibidem*, 13 Dec. 1856). The new work of DR. SCHERZER brings another distinguished pioneer into the field; and we have reason to hope that much light will be thrown upon the Indian languages of New Mexico, California, &c., by the conjoint researches of two gentlemen eminently qualified for the task—Mr. JOHN R. BARTLETT (late U. S. Boundary Commissioner to Mexico, and now Secretary of State for Rhode Island), and Prof. WM. W. TURNER (of the U. S. Patent Office, Washington, D. C.).

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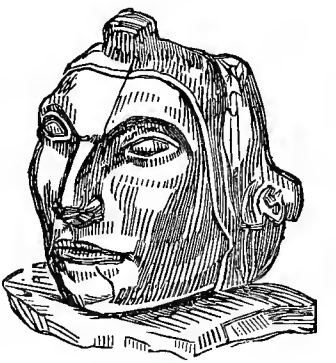
them "mound-builders," from the regular fortifications which they have erected in several of the western and southern States.[197] The Natchez, destroyed by the French of Louisiana, in the last century, seem to have, in part, belonged to them. A most characteristic,—we may say artistically-beautiful—head [73] in red pipe-clay, the workmanship of these unknown mound-builders, dug up and published by SQUIER,[198] exhibits the peculiar *Indian* features so faithfully, and with such sculptural perfection, that we cannot withhold our admiration from their artistical proficiency. It proves three things: 1st, That these "mound-builders" were American *Indians* in type:—2d, That time (age ante-Columbian, but otherwise unknown,) has not changed the *type* of this indigenous group of races:—and 3d, That the "mound-builders" were probably acquainted with no other men but themselves. In every way confirming the views of the author of *Crania Americana*.

Fig. 73.



MOUND-BUILDER.

The monuments of Mexico partake more of the decorative character, and we cannot but admire their ingenuity in making use of the most refractory materials for artistical purposes. The following three heads were all published by the various authors of *Antiquités Mexicaines*. Fig. 74,[199] carved of wood, is remarkable for its finish and elegance; fig. 75[200] belongs to a statue of volcanic stone; fig. 76[201] is of smaragdite, a green, hard, gem-like stone, which cannot, by ourselves, be worked otherwise than by steel or bronze, and requires the action of the wheel and emery. All of them are characterized by the

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[197] [Whilst correcting proof, I learn, with the deepest regret, of the demise, at New York on the 14th Dec. 1856, of Dr. HERMANN E. LUDEWIG; whom I saw quite well there last October. Our muttual friend Mr. TRÜBNER will deplore, with our fellow-students, this sudden loss the more, as he has in press the crowning monument of LUDEWIG'S arduous labors—the "*Bibliography of American Aboriginal Linguistics*"—the MSS. of which we looked over together, in London.—G. R. G.]

[198] *Ancient Monuments of the Mississippi Valley*, 1848, p. 245, fig. 145.

[199] *Antiquités Mexicaines* (*Relation des Trois Expéd. du Cap. Dupaix*, 1805–7, *dessins de Castañeda*—par LENOIR, WARDEN, FARCY, BARADÈRE, ST. PRIEST, &c., Paris, 2 vols. folio, 1834)—pl. lxiii., fig. 121, p. 53—2nde Expéd.

[200] *Idem*, pl. vi. p. 7—1re Expéd.

[201] *Idem*, Supplément, pl. vii. p. 13—3me Expéd.:—compare also HUMBOLDT (*Vues des Cordillères*, Paris, fol. 1810, pl. 66), "Tête gravée en pierre dure par les Indiens Muyscas;" (*Researches*, tr. Williams, London, 8vo., 1814, ii. p. 205); who considers the stone a smaragdite, and the workmanship New Grenadian.

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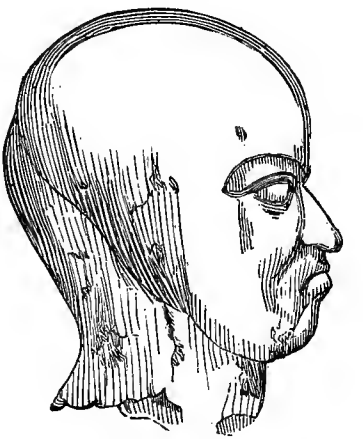
peculiar features of the Central American group of the Red-men,

Fig. 74.

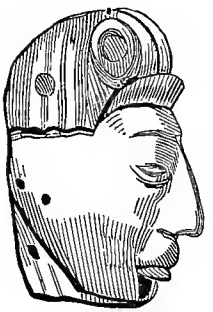
Mexican Musical Instrument.

Fig. 75.



Mexican Statue.

Fig 76.



Mexican Gem.

in the formation of the skull, as well as by their high cheek-bones.

The drawings of the Mexican hieroglyphical and pictorial MSS. are of a conventional and decorative character. The following group from the astronomical *Fejervary codex*, is inserted to represent the state in which they portray the phases of the moon, according to Aztec mythology. We see first the sun and the moon quarrelling [given in wood-cut 77]: the next group, in the original MS., shows the defeat of the moon, which in the third group is swallowed by the sun; the fourth figure represents the triumphant sun; in the fifth, the conqueror (very unæsthetically) spits the head of the moon out, as symbol of the first quarter.[202]

We merely figure one specimen: the subject being hardly intelligible without the *colors* of the original.

Of a higher importance are the antiquities of Central America; though a comparison of the different publications on the ruins of Palenqué clearly shows, that a faithful copy of those monuments belongs still to the desiderata of archæology. The idiotic head [78] published by Waldeck,[203] with the peculiar artificial deformation of the

[202] Kingsborough, *Antiquities of Mexico*, iii.; "MS. in the possession of Gabriel Fejervary"—figs. 3, 5, 6, 7.

[203] *Voyage Pittoresque et Archéologique dans la province de Yucatan*, 1834–6, Paris, fol. 1837; pl. xxii. p. 105—"Relief astronomique de Palenqué"—(differently given in Del Rio, *Description*, 1822, pl. 3.)

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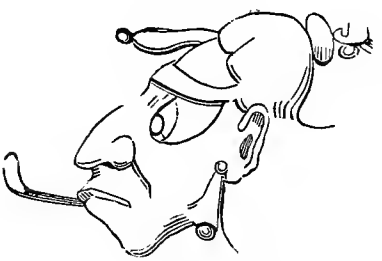
Fig. 77.

MEXICAN ILLUMINATED MS.

Fig. 78.



PALENQUÉ-RELIEF.

Fig. 79.

YUCATAN-IDOL.

skull; and the terra-cotta idol, [179];[204] —both from Yucatan,—show a tendency towards decorative art; which treats even the human form merely for ornamental purposes, and therefore lays a peculiar stress on the head-dress, eyebrows, wrinkles, and other accessories, in preference to the purity of the principal forms. In fact we may characterize the reliefs of Palenqué by this peculiarity, which we observe in a smaller degree on Mexican reliefs.

The few monuments of Guatemala hitherto published, among those discovered by Squier, are of a purer taste and higher artistical character. This inedited colossal head [80], obligingly communicated to us from his well-stored portfolio, found by him at Yulpates, in 1853, sur-

[204] *Idem*, pl. xix.—"Idole et Vase en terre cuite."

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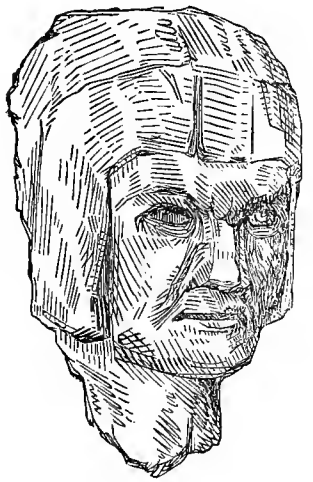
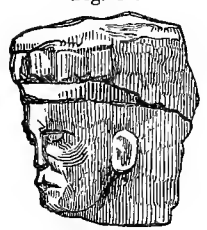
passes in beauty all we knew before of the art of the Red-race. The simplicity of design, the exquisite finish of execution, and the earnest expression of the head in question (to which our wood-cut does not do adequate justice), place it on an equal footing with the productions of any Japetide race. Still, the Indian character of the features attests sufficiently its indigenous origin. We owe this gem of American sculpture to the liberality of Mr. Squier; whose name is associated with so many important researches and enterprises, that he has been able easily to transfer to us the honor of publishing the best of all American statuary. To it we add, as specimens of Central American style, three heads from one of his published works.[205]

Fig. 80.



Guatemalian-idol.

Fig. 81.



Nicaraguan.

Fig. 82.

Nicaraguan.

Fig. 83.

Nicaraguan.

We copy from the work of de Rivero and von Tschudi,[206] the following terra-cotta head [84], as a specimen of Peruvian art; and, in order to show the affinity of Indian art all over America, we compare it with a Mexican terra-cotta head [85].[207] The resemblance in artistic treatment between both figures is most striking.

Tschudi, with an exaggeration easily explicable in the discoverer and commentator of monuments formerly unknown, compares his Peruvian vase to any Etruscan work of pottery; but, even if we must dissent from his view in respect to the workmanship of the head pub-

[205] *Nicaragua*, New York, 1852—No. 81, from i., p. 302, "Idol from Momotombita,"—No. 82, from ii., p. 62, "Idols at Zapatero"—No. 83, ii., p. 52, same sculptures.

[206] *Antiguedades Peruanas*, Vienna, 4to., 1851, Atlas, lamina ix.—head on a vase.

[207] *Antiquités Mexicaines*, 2nde Expédition, pl. xxiv. fig. 71, p. 20.

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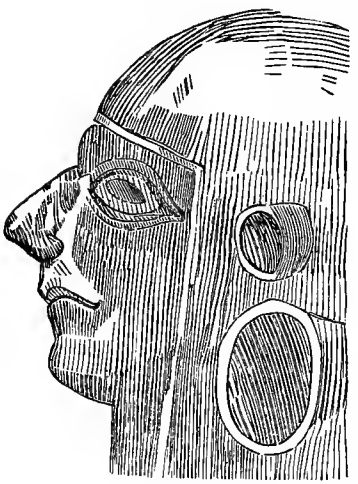
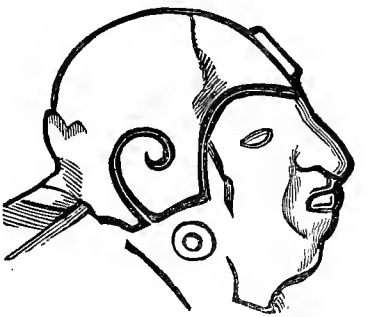
lished by him, we may admit the high proficiency of Peruvian art,

Fig. 84.



PERUVIAN VASE.

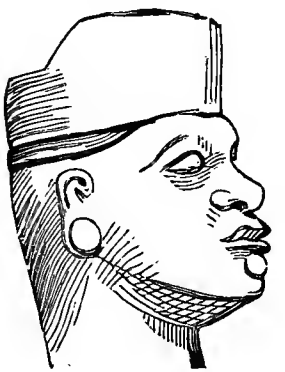
Fig. 85.



MEXICAN TERRA-COTTA.

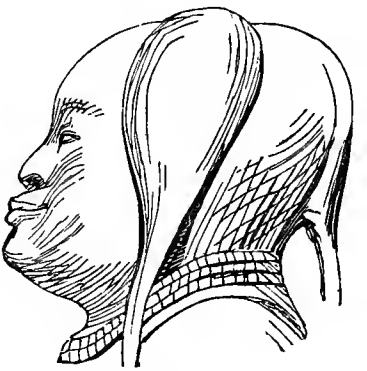
when we behold two most exquisite terra-cotta heads of the British Museum; which, according to the label on them, were found in the neighborhood of Lake Titicaca. Both of them are here edited for the first time. The male head [86] compares advantageously with works of Egyptian or Etruscan artisanship, whilst preserving the character of the Indian race; and the female head [87], with its artificial

Fig. 86.



PERUVIAN MALE.

Fig. 87.



PERUVIAN FEMALE.

deformity of the skull, gives us the highest idea of the artistical endowments of the Aymaras.

These few specimens of the indigenous ante-Columbian art of America show sufficiently the constancy of the Indian type—as preserved now in the very geographical province whence each relic has

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been derived—during all the historical period of the New World, and its great difference from Chinese and Japanese works of art. Could we hope that the monuments of Central and South America might attract the attention and excite the interest of more American scholars than hitherto, the theory of the Mongol origin of the Red-men would soon be numbered among exploded hypotheses,—to be forgotten, like the fond illusions of Lord Kingsborough; who succumbed prematurely, 'tis said, fortuneless in pocket and aberrated in mind, owing to his sincere and munificent endeavors to deduce "American Indians" from the falsely-supposed "*lost* Ten Tribes of Israel."

IX.—ON SOME OF THE UNARTISTICAL RACES.

Count de Gobineau's publication on the *Inequality of human races*[208] is certainly a work sparkling with genius and originality, if indulging in some wild hypotheses not supported by history. By one of his most startling assertions he derives the aptitude for art, among all the nations of antiquity, from an amalgamation with *Black* races. For him, Egyptians, Greeks, Assyrians and Etruscans, are half-breeds, mulattoes! We would not notice this strange and altogether-gratuitous hypothesis, had not several other works—unscientific, but important by the intense popularity they have acquired,—held out the expectation that the Black races might, after all, turn out to be artistical, and hence bring about a new era of art. Sober history does not encourage such dreams, nor can the past of the Black races warrant them. Long as history has made mention of negroes, they have never had any art of their own. Their features are recorded by their ancient *enemies*, not by themselves. Egyptian kings who, from the earliest times of antiquity, came often into collision with the blacks, had them figured as defeated enemies, as prisoners of war, and as subject nations bringing tribute. Their grotesque features, so much differing from the Egyptian type, made them a favorite subject for sculptural supports of thrones, chairs, vases, &c.; or painted under the soles of sandals, of which instances abound in Museums as well as in the larger works on Egypt.

To the many examples of monumental negroes furnished in "Types of Mankind," we add two that are inedited, due to M. Prisse d'Avennes's friendship for his old Egyptian comrade, Mr. Gliddon. The first [fig. 88] is accompanied by the following memo-

[208] *Essai sur l'Inégalité des Races Humaines;* 8vo, vols. I, II, 1853; III, 1854; IV, 1855. Cf., on the same subject, Pott, *Ungleichheit Menschlicher Rassen hauptsächlich vom sprachwissenschaftlichen standpunkte*, 1856.

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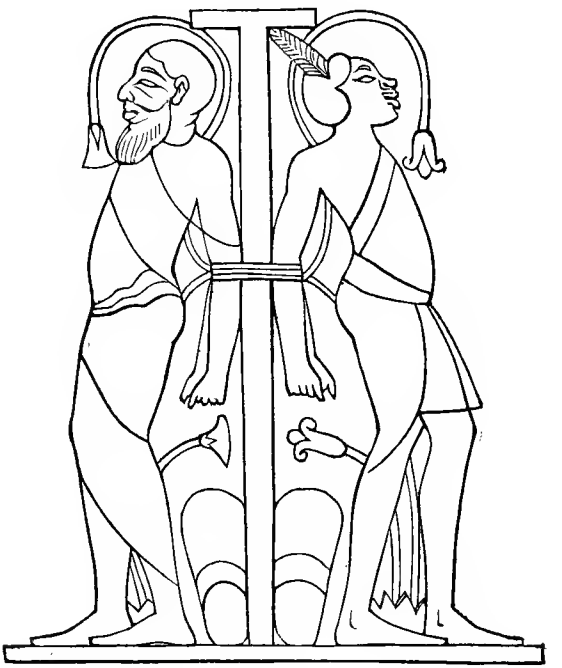
randum:—"Tombeau de *Schampthé* (Thèbes),—sous *Amounoph* III"

Fig. 88.



Asiatic and *African.*
(Theban Sculptures — XVIIth dynasty — 16th century B. C.)

Fig. 89.

Ancient Negro.

—about the 16th century B. C. The second [fig. 89] is the head of one of two exquisitely-designed and colored full-length negroes, identical in style, supporting a "Vase peint (jaune, traits rouges) sur les parois du tombeau de *Aïchésiou*, prêtre chargé de l'autel et des écritures du grande temple de Thèbes, sous Ramses VII,—XXe dynastie (hypogées de Gournah)." The first corroborates that which, since Morton's day, has ceased to be disputed, viz: the existence, during all the monumental period of Egypt, of at least *three distinct types* of man along the Nile, *Egyptian*, *Shemitic* and *Nigritian;* the second (which point, Mr. Gliddon's and M. Prisses's long familiarity with Egypt render them competent authorities to assert), is identical, after 3000

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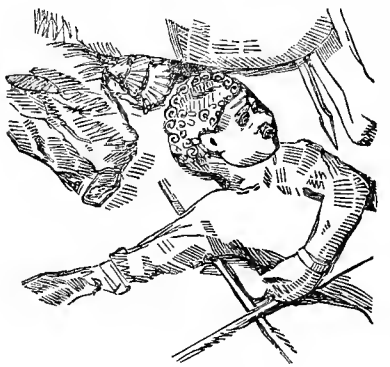
years of time, with the ordinary class of black slaves still imported from the upper Nile-basin for sale in the bazaars at Cairo.

Both these monuments belong to the XVIIth and XXth dynasties, which carried the arms of the Pharaohs to the upper Nile and to the Euphrates. The other artistical nations of antiquity knew little of the Negro-race. They did not come before Solomon's epoch into immediate and constant contact with it. We see soon after, however, a negro in an Assyrian battle-scene of the time of SARGON, at Khorsabad [90].[209] He might have been exported from Memphis by Phœnician slave-dealers to Asia, where he fell fighting for his master against the Assyrians; who did not fail to perpetuate the memory of such an extraordinary feature as a *black* warrior must have been to them. On that remarkable relief of the tomb of Darius Hystaspes, at Persepolis, (*supra*, p.? fig. 35) we have seen the negro as a representative of Africa. The Greeks seldom drew blacks: still, on beautiful vases of the British Museum we meet with the well-known negro features in a battle-scene. [See the annexed plate IX, fig. 1]. Another such vase, with the representation of Hercules slaying negroes, has been published by Micali.[210] Etruscan potters, who, as already remarked, liked to draw Oriental types, moulded vases into the shape of a negro head, and coupled it sometimes with the head of white males or females. The British Museum contains several of these very characteristic utensils. [See Plate IX, figs. 2, 3, 4]. These two Etrurian vases are not older than the 4th century B. C.—probably between 200 and 250 B. C. The medal-room of the British Museum contains, besides, three silver coins of Delphi, age about 400 B. C.; having on one face the head of a negro, with the woolly hair admirably indicated; and on the other a goat's head seen in front-view, between two dolphins, the usual type of Delphi. We know likewise several Roman cameos, which represent negroes with all the refined elegance of the imperial epoch [91]. Thus we possess effigies of negroes drawn by six different nations of antiquity: Egyptians, Assyrians, Persians, Greeks, Etruscans and Romans; from about the 18th cen-

Fig. 90.



KHORSABAD-NEGRO.

[209] BOTTA, *Monument de Ninive*, pl. 88.

[210] *Monumenti Antichi.*

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Etruscan Vase.

3.

2.

4.

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tury B. C., to the first centuries of our era, which all speak for the unalterable constancy of the negro type such as it is in our own days. We see that it was not only the color, but the peculiar type that struck the ancients; and which the Romans, for instance, knew quite as minutely as any modern ethnologists. Petronius, who lived under the emperor Nero, describes, in his Novel, three vagabond literary men who, having taken passage in a ship on the Mediterranean, suddenly discover that it belongs to a merchant on board, whom two of them had previously robbed. Dreading his revenge, one of them says:

Fig. 91.

NEGRO HEAD. (*Pulszky Coll.*)

"Eumolpus, being a scholar, has certainly ink with him: let us therefore dye ourselves from top to toe, and as Ethiopian slaves we shall be at his command without fear of torture; for by the change of color we shall deceive our enemies." But Geiton exclaims in reply: "as if color alone could transform our shape! for many things have to conspire that the lie might be maintained under any circumstances. Or can we fill our lips with an ugly swelling? can we crisp our hair with an iron? and mark our forehead with scars? and distend our shanks into a curve? and draw our heels down to the earth? and change our beard into a foreign fashion? — artificial color besmears the body, but does not change it." [211]

Voltaire has somewhere wittily remarked, "the first white man who beheld a negro must have been greatly astonished; but the reasoner who claims that the negro comes from the white man astonishes me a great deal more."

Negroes, however, are not the only unartistical race. We have already spoken of the Shemites among the whites, and we must add to them the Turanian or Turk-Tartar family of nations; that is to say, the Hungarians proper, the Turks and Turkomans, the Finns, and some migratory tribes of southern Siberia; none of them ever having produced any painter or sculptor. But not even all the Japetides are endowed with artistical tendencies. The Celts and Slavonians, and among the Teutonic races, the Scandinavians, had no national art. The imagery of their epics and lyrics is neither picturesque nor sculptural; their buildings, pictures and statues, are characterized by no peculiar type, and are either the works of foreigners, or servile imitations of imported models. The Turks and Celts have, at least, a peculiar feeling for ornament, for decorative art and harmony of colors; but all the other nations mentioned above have never felt that inward impulse which prompted even the semi-civilized Toltecan

[211] T. PETRONII ARBITRI, *Satiricon*, cap. CII: — compare the extract from VIRGIL in *Types of Mankind* (p. 255); and the quotation from LOCMAN'S *Fables*: (p. 246) which is but the Arabian or Persian dress of the same idea in ÆSOP'S.

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nations of America to build gigantic structures and to adorn them with sculptures and paintings:[212] the genius of art has never smiled upon them. But, such being the indubitable facts of history, have we therefore to consider Hungarians, Celts, Shemites and Scandinavians, as lower races than the ante-Columbian Aztecs of Mexico, and the Aymaras and Quichoas of Peru? Are we, because some nations got peculiar endowments not shared by other races, to transfer these facts into the moral, social, and political sphere? Are the scientific facts about the original "unity" or "diversity" of human races, and their equal or unequal mental and artistic endowments, to bear upon their political, social, and legal treatment? Are the Shemites to be despised because they cannot understand epics and theogonies? and the Celts oppressed because their imagination predominates over their reasoning faculties? and the Negroes enslaved because they never arrive at orthography or grammatical correctness? Will the Hungarians, if they could be forced to forget their language and to speak German; and the Poles, if they merge into the Russian family, become more useful to mankind than in their own languages? Will they, by changing their idiom, change their national peculiarities? Can they develope themselves under oppression and on a foreign basis, better than in freedom and in their national individuality? To all these questions there is but one reply: whatever be their origin and endowments. They are all *men;* that is to say, beings possessing reason and conscience, responsible for their actions to their Creator, to mankind and to themselves, able to recognise truth, and to discern between right and wrong, and therefore they are equally entitled to "life, liberty and pursuit of happiness."

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[212][So true is this remark, that WALDECK (*Yucatan*, p. 34) relates how the *Meridaños* are excellent imitators and clever workmen to this day; possessing, like their ancestors, an innate power for sculpture and drawing. Again, in a more austral and less artistic part of America, the *mulatto*-breeds between Indians, negroes and Portuguese, have much talent for art (DEBRET, *Voyage pittoresque au Brésil*, III, p. 84). In spite even of Islamism, this perdurable race-instinct breaks forth in Egypt among the Theban *fellàhs;* whose Benvenuto Cellinis, with the humblest instruments, manufacture "modern antiques" with sufficient skill to gratify that "love for Egyptian art" professed by the most fastidious Anglo-Saxon tourist. ALI CAMMÒONEE was, during my time at Thebes, the *Shèykh* of native artists in that line. My friend Mr. A. C. Harris, and myself, supplied him with all the small tools we could spare (bits of tin and glass, broken penknives, nails, old toothbrushes, &c.), in hopes through such means, under Providence, to flood the market with antiquarian curiosities satisfactory to "les badauds;" and thus obviate the necessity for their chipping the monuments. (See my *Appeal to the Antiquaries*, London, Madden, 1841, pp. 139–45).—G. R. G.]

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X.—HINDOO AND CHINESE CIVILIZATIONS AND ART.

THE peninsula of the Indus and Ganges is separated from the mainland of Asia, by sand-deserts and ranges of inaccessible mountains. The few long and narrow passes which lead through these mountains, were rarely used as means of communication with the West and North, for they are the home of warlike robber-tribes, accustomed to levy black-mail on the surrounding populations. The currents of the sea, and the directions of the winds, led the enterprise of the Hindoos to the South-East, to the Malay peninsula and its island-world. It was thither that India sent her culture and religion: untouched by the lively development of the classical western world, she remained unconnected with the current of our history.

Scarce and faint were the legends about that great country of the East, which, in times of classical antiquity, reached the West by the way of Persia and Arabia. The mythical tradition of the triumphs of Bacchus, and Hercules, was all that reminded republican Greece of the home of spices and gems. Guided by this tradition, Alexander the Macedonian reached the frontiers of the fable-land; but even his adventurous spirit had to give up progress into the interior. The elephants, which he brought from the upper Penjaub, decided the battles of his successors for more than half a century after his death; down to the time when the last of them went up the Capitoline hill, in the triumph of Curius Dentatus. This animal must have lived full fifty years in Macedonian harness after the war with Pyrrhus, being the last evidence of the unrivalled eastern conquests of the great Macedonian. The Roman Legions were never able to surmount the difficulties which barred access to Hindostàn; and a few merchants and ambassadors were the only western people, who, during the times of classical antiquity, had seen the sacred rivers of the peninsula.[213] The development of society, religion, government, and art, with the Hindoos, their institution of castes, their single and efficient system of self-government, their elaborate code of law, their epic and dramatic poetry, and their stupendous works of architecture and sculpture, are, therefore, all of indigenous growth. They are certainly not derived from, and many of them are probably much anterior to, the Macedonian invasion; which could not have left any lasting trace; both from its short duration, and from the

[213] One of these successful travellers, BARDESANES, gives us the first description of a Hindoo rock-temple adorned with the sculptures of an androgynous God. See PORPHYRIUS *apud* STOBÆUM, *Eclog. Phys.* i. p. 144.

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comparatively small extent of the territory overrun by the forces of Alexander, and even of Seleucus and Demetrius, his Syrian and Bactrian successors.

[The Punjab remained under the nominal sway of the Macedonians for about ten years, when this supremacy was thrown off by Sandracottus (*Chandragupta*), about 317 B. C.; when Seleucus of Syria found it wiser to make peace with the rebel Hindoo raja, and to give him his daughter in marriage. The Greek kings of Bactria, from Demetrius to Menander and Apollodorus,—that is to say, for about one century—were likewise suzerains of the country on the Indus until 120 B. C. Still, they resided in Bactria; and there is no trace of Greek mythology, and consequently of Greek art intimately connected with it, anywhere in the Punjab: on the contrary, the Bactrian kings put the representation of the Hindoo Shiva and of his bull Nandi on their coins struck for the Indian dominions. Hellenism, therefore, did not spread along the Indus, but it had to yield to Hindooism.

After the Macedonian visit, Hindostàn remained for more than a thousand years undisturbed by foreigners; outliving the fierce contest between Buddhism and Brahmanism; civilizing by the former the Malay peninsula, and extending its moral influence to Thibet and China, whilst the latter converted Java about A. D. 800. Two centuries after that event, Shah Mahmoud, of Ghuzni, the monotheistic fanatic, called "the destroyer of idols," overran the north of Hindostàn, burning the towns, sacking the temples, and breaking the images; and settled his Pattán and Affghàn followers in this fertile country. Ever since his time, northern Turanian conquerors found no difficulty to invade India, either for pillage or for conquest. Timur, Baber, and Nadir Shah, flooded the country with their followers, in succession; and planted a numerous Mohammedan population, and Islamite dynasties, among the effeminate Hindoos. Arab merchants spread, at the same time, over all the coasts and islands, and converted Malay-Java (which had previously accepted the civilization and religion of the Vedas) to Islàm; about A. D. 1400. Still, the bulk of the population of the peninsula remained unshaken by the purer religion and social institutions of the Mohammedan conquerors. European invaders came next. More systemically than their Mussulman predecessors, they broke up the legal institutions and the traditions of indigenous administration. They swept away the old aristocracy and gentry of the country; but the character of the Hindoo, and his views of God and nature, of law and society, remain unchanged. The population lives among, but does not intermix with, their former rulers, the Mussulmans; nor with their present European lords—who (to use a geological simile) are in India the two newest strata of recent date; covering the primary formations mechanically, but failing to transform chemically the old plutonic rocks of Buddhism and Brahmanism.]

With the Hindoos, religion, institutions, and art, are (as everywhere amid aboriginal races) in the most intimate connection with the physical features of the country. Here the exuberant power of tropical vegetation, equally gigantic in creation and in destruction, subdue the energies of man. The sudden changes of temperature,—the tropical rains which, in the course of a few hours, swell the rivulet into a great stream,—the snowy mountain-peaks and mighty rivers,—the jungles that, with their lofty bamboo, encroach upon every inch of ground left uncultivated,—the strange trees, of which every branch becomes a new stem,—the powerful animals, from the elephant, and tiger, down to the white ant dangerous to the works of

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human industry by its enormous numbers,—in short, all nature appears in such overwhelming features, that the Hindoo gives up the continuous struggle with it, and finds his reward not in activity but in passive contemplation. His imagination soon gets the upper hand of his understanding; and in mythology, art, and science, takes an unrestrained flight into the transcendental, the monstrous and shapeless.

The Hindoo adores "nature," as well its destructive as its creative power; he recognises a soul in every living creature; he believes in the transmigration of the soul; and therefore throws the corpse of his beloved into the Ganges or into the fire, the sooner to be dissolved into its original atoms by the pure elements. The "*Nirvana*," with the ancient Buddhists, and the "*Yogha*" with the Brahmans, that is to say, the losing of the individuality in contemplation—a death-like state—being with him the noblest aim of life and the highest degree of sanctity, death has no terrors for him:—he flings himself under the wheels of the triumphal car of Shiva at Jaggernaut, and the widow willingly ascends the pile with the corpse of her husband. In the nature around him, destruction being always followed by immediate regeneration, he believes creation to be an uninterrupted cycle of one and the same life, only changing its form; and his poets sing, that

> "Like as men throw away old garments, and clothe themselves in new attire,
> Thus the soul leaves the body and migrates into another."

Nature being to the Hindoo the incarnation of Godhead, he has a deeply reverential feeling for it; and adorns his works of art with flowers in such a profusion, that man and his actions become often only accessories of this adornment. Still, it is not in an arbitrary way that he sheds his flowers on poetry and sculpture; they always have a deeper, symbolical meaning.

During the inundations, when the valley of Bengal is nearly lost under the waters, the petals of the Lotus flower alone swimming on the waves, bear evidence that the vital powers of nature have not been destroyed by the floods. This flower became, therefore, the symbol of life and of creation: it is the throne of all the Gods, and especially of Brahma the creator.

The representation of Kama, the God of Love, is one of the most gracefully symbolical—though entirely unplastic, specimens of Hindoo imagination. It is a smiling child with bow and arrows, riding on a parrot. The bow is a bent sugar-cane adorned with flowers, the string is formed by a row of flying bees, and the arrow is a lily. Thus the Hindoo tries to represent the gentleness and inconstancy, the impudence and the innocence, the sweetness and the stings, of love, in one and the same image.

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In the same symbolical way, the Goddess of Beauty and Pleasure is the Goddess of Nature; for, Nature is always beautiful, and the beautiful always natural. She is the wife of Shiva — the God of Destruction, and holds a flower in one hand, with a snake coiled around it: since pleasure is blended with danger, as life and beauty with death.

I cannot enter here upon Hindoo Architecture, nor give any details of the wonders of the cave-temples, some of them resembling our churches by their nave and aisles. Space forbids me to speak of the colossal tanks in the south surrounded by huge buildings, and adorned by grand flights of steps; or of the deep wells in the west, cut into the rock and surmounted by a series of galleries, to afford cool shade in that hot climate. I must not here enumerate their triumphal monuments, their columns decorated with reliefs, their grand arches surmounted by statues. Suffice it to mention the fact, that Hindoo art, through all the epochs of its history, was entirely indigenous and peculiar to the peninsula. The great palaces, temples, and tombs of the Mohammedan princes bear not the slightest resemblance to the native architecture, being themselves analogous to the mosques of Cairo, and the seraglios of Constantinople or of Moorish Spain.

The character of Hindoo sculpture is similar to Hindoo poetry: it is eminently feminine. We find with their artists always a delicate feeling for the pleasant and graceful, as well as for the pompous and adorned, whilst they fail in their attempts at grandeur, — being either crushed by the exuberance of the decorative element, or losing themselves in tasteless and adventurous exaggeration. In general, their statues and reliefs are true in the principal forms, and soft and elaborate in execution.

The sculptors are peculiarly successful in rendering the expression of deep contemplation, or of religious devotion. The representations of domestic life are of the greatest sweetness; the feminine passive character of the Hindoos being admirably portrayed in their pleasant simplicity. But when a God is to be drawn in action, and his power to be symbolized, the artist failed in his task: unable to reproduce superhuman power by idealizing the human form, he betook himself to unartistic and symbolical methods, as by multiplying head and hands. Such symbolical personifications of Godhead are not at all exclusively Hindoo; they were not unknown to the mythology, and earlier poets of Greece. The Giants, with their hundred arms; Geryon, with three bodies; and Polyphemus, with his eye on the forehead; are subjects of art as unplastic as any creatures of Hindoo imagination. But the Greek sculptors avoided to represent

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such myths, whereas the Indian artists had often to deal with them; and we must confess, that sometimes they succeeded in conciliating them with good taste, by giving prominence to the principal pure forms, and treating the monstrous appendages as decorative accessories. Monstrosity is, on the whole, not the principal character of Hindoo art; but monstrous idols excite the curiosity of the European visitor of India more than artistically-carved statues; he buys them and carries them to the West, on account of their very oddity. Hence, our public collections and curiosity-shops are swamped with four-handed and three-headed monsters, which ought not to be taken for fair specimens of Hindoo art, though they have given rise to the general belief that Hindostân has no art worthy to be noticed. We can scarcely wonder that such is the case, since the public at large—let us boldly avow it,—cares little for art: how then should it take an interest in an art founded on myths, institutions, and a culture which has scarcely any affinity with our own civilization? The few scholars, on the other hand, who devote their time to the literature of Hindostân, are but too often philologists, without any artistic education. We have, therefore, no publications on Hindoo art, such as those of Champollion, Rosellini, and Lepsius, on Egypt, or of Texier, Flandin, Botta, and Layard, on Persia and Assyria. The most important sculptures of India have not yet been copied; and the collections brought to the West have not been made with the view of giving a correct idea of the peculiar style of Hindoo art in its different schools and epochs. The confusion becomes still greater, by the fact that the old mythology of Brahmanism has, with a few slight alterations, remained the religion of the population down to our days. Idols are cast and carved continually, and their barbarous style throws discredit on the better specimens of former ages. Our knowledge of Indian art is only fragmentary, and scarcely authorizes us to assign its proper position to every monument, either artistically or chronologically. Still, a few facts are sufficiently ascertained, to serve as a clue in the labyrinth of Hindoo art.

The rock-caves, with their fantastic, exuberant, and somewhat exaggerated reliefs, are all of Buddhist origin. They are more chaste in style than the idols of the present worshippers of Shiva; and belong to a period of Indian history, classical for art and poetry, from 500 B.C., to about 300 A.D. By a strange coincidence, it is the same period in which Phidias and Praxiteles and Lysippus, and the Roman artists of Augustus and Trajan, flourished in Europe.

Still more graceful, and more serene, are the Hindoo sculptures of the isle of Java, which we meet in the ruins of the temples of Boro-Bodo and Barandanum. The great Sir Stamford Raffles, and the Bombay Asiatic Society, have published a few specimens of those

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excellent reliefs; which may be placed among the best productions of art. The following drawing of a colossal head of Buddha [91][214] in a volcanic stone, now in the Glyptothec of Munich, may give an idea of the elegance and feminine character of those sculptures.

Fig. 91.

BUDDHA.

The great bulk of the idols, in the collection of the British Museum, of the East India House, and of king Louis at Munich, belong to another style, which we call the florid style, characterized in its best specimens by an elaborate elegance, and often by affectation of sweetness, with a profusion of ornaments which encumbers the figures. Fig. 92, from a bronze of the British Museum, representing Lakshmi, the Goddess of Beauty, or Hindoo Venus, is a fair specimen of this style; which belongs to the XVth and XVIth century of our era, and is still imitated by the modern artists of India. There are some rude figures, of an entirely different style, in some of the Museums of Europe; and again others evidently archaic in their type: still, all of them are characterized by the same long pointed nose, the same mild eye, and the same sweetness of expression in the oval face,—which form still the distinctive marks of the high castes of Hindostàn.

Fig. 92.

LAKSHMI.

It is peculiarly interesting to see a school of art, so eminently feminine, apply itself to the service of a more martial race; trying to represent the features and the court-life of the Turanian Dynasties, established in the XVII—XVIIIth century all over the peninsula. The miniature-paintings of the time of Shah Jehàn, Jehàngír, Akbar, and Aurengzeb, are really admirable. Whether they represent the splendor of a gorgeous court, or portray scenes of domestic life, there is such a gentle delicacy of feeling displayed in them, such a modest grace in the attitudes, and such a charm, especially in the female forms, that they are as pleasing, even to European taste, as the tales of the Arabian Nights. And yet there is no perspective to be met with in those paintings; the manner of shading the figures is unnatural; the costume is strange, and the grouping somewhat awkward. All this is

[214] OTHMAR FRANK, *Ind. Mythologie;* and SIR STAMFORD RAFFLES, Java.

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eminently Hindoo; but the features of the persons represented mark their foreign origin. The likeness of a prince of the house of Timùr [92], probably Darab the brother of Aurengzeb, on a sardonyx-cameo of my collection, shows a Turanian cast of features.

Fig. 92.

INDIAN PRINCE, (*Pulszky Coll.*)

Four portraits of Mohammedan princes and statesmen in India, of the time of Aurengzeb (1658–1707),—selected from a large collection of likenesses painted by contemporary Hindoo artists and now adorning my Indian Museum—are most remarkable for their excellent characterization of the different races of the Muslim aristocracy in India, during the XVIIth century. SHAH JEHÀN [93], the Grand Mogul of Delhi, from 1628 to 1658, is the grandson of Akbar the Great, who was grandson to Babur, — founder of the dynasty of the Moguls, which gave an uninterrupted succession of six great rulers to India, from 1494 to 1707. Babur, a Turkoman from Ferghàna, was the fourth in descent from Timùr-leng; and, though promiscuous polygamy is apt to destroy the national type of any race, we still behold, in this portrait of Shah Jehàn, the old Turanian character, resembling the portraits of the Parthian kings.

Fig. 93.

SHAH JEHÀN.

KHÀN KHÁNNA, the General-in-Chief of the Sultan of Beejapoore in the Dekhàn, is a Tamul convert to Islàm. [See his portrait, slightly enlarged, tinted to give the color of his skin, in Gliddon's "Ethnographic Tableau" (No. 46, *Hindoo*,) at the end of this volume.] He represents the aboriginal negroid (*Dravidian*) race of the southern table-lands of Hindostàn; not to be confounded with the Brahman race of the Gangetic valley—which is not aboriginal, but a conquering race coming originally from beyond the Hindoo Kush, and closely allied to the Arians of Persia.

Khàn Khánna's Chief, MAHMÒOD ÂDIL SHAH [94], of Beejapoore, claimed descent from the present Osmanlees. His ancestor, Yussùf Khàn (1501), founder of the empire of Beejapoore, having been the son of Sultan Amurath II., of Anatolia, his round Turanian skull is still more characteristic than that of Shah Jehàn.

SHAH MIRZA [as such he stands in the "Ethnographic Tableau," (No. 23, *Uzbek Tatar*)], the Chancellor of the kingdom of Golconda, is an Uzbek Tartar: and MOLLAH RÚKHA [95], his chief clerk, cannot

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Fig. 94.

Mahmòod Âdil Shah.

Fig. 95.

Mollah Rúkha.

Fig. 96.

Mûsa Khàn.

disown his Arab descent; the cunning Shemitic features are unmistakeable. Mûsa Khàn, [96] the Affghàn General-in-Chief of Golconda, is stamped with the peculiar character of his race. We see in this remarkable assemblage of the statesmen of Golconda, under the reign of Sultan Âbd-Allàh Kobcha, (about the middle of the XVIIth century,) all the elements of Mohammedan conquest in Hindostàn. Whoever has lived for a while in India will recognise in them the most characteristic types of Islamite aristocracy in the Dekhàn, as it is still seen at the Court of the Nizàm.

The European conquest of India has not improved art among the natives. Trying to imitate their European lords, and struck with the peculiar effect of light in our drawings and paintings, the Hindoo painters have lost the traditions of their own art, and are lapsing into barbarism, wherever the contact with Europeans is great—for instance, in Bengal: whilst the painters of the Dekhàn are somewhat better, though not equal to the masters who produced those miniature-likenesses, &c., of the greater time of the Grand Moguls.

The preliminary remark, that we do not know sufficiently the monuments of Hindostàn to characterize the different schools and epochs of art, applies with still stronger force to the peninsula east of the Ganges. We know, however, the monotonous statues of Buddha, carved and cast by the artists of Birma, well enough to see that Birmese art is clumsier than Indian; whilst the features of the statues are altogether different from the Hindoo cast. As to Siam and Cochin-China, concerning their art, we were unable to get any facts whatever. These countries are visited only by a few merchants and missionaries, who ignore art. China is by far better known, in this

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respect, than the Malay peninsula and its adjacent countries; and deserves the attention of the ethnologist and philosopher, since it is the country where the Yellow-race has developed itself on foundations entirely peculiar and entirely indigenous. In China all the citizens are politically equal: legally there are neither patricians, nor slaves, nor serfs; neither privileged nor unprotected classes in the country. The priests form no hierarchy, the officials are not chosen from among an aristocracy of birth. The Yellow-race has not been trained by theocracy, nor ennobled by chivalry. From the very earliest times, we find with the Chinese a thorough centralization; a well-organized bureaucracy, open to competition; a paternal despotism, carefully superintending, regulating, repressing and suppressing the moral exertions of the people, and providing that nobody should aspire to a position to which he has not become entitled by his training, and his degrees taken at the regular examination. The emperor sits on the throne as the incarnation of sober common sense; the priest is the servant of the state; the church and school are police-establishments, by which the Chinese is taught blindly to respect authority, officials, "law and order," and to which every child is sent to learn practical sciences. In fact, it is the system of patriarchal, enlightened, absolutism,—so much praised by the statesmen of continental Europe, and many self-called "radicals" of England; the system of a nobility of merit and office; of centralized functionarism; of select committees and boards of inquiry; of orders in council, and voluminous instructions for the people how to behave so as to become happy; of checks and counter-checks; of spies and denunciations; of police regulations and vexations. In short, China is the country of enlightenment, of equality, and of the bamboo,—paternally applied to everybody, from the prime minister to the humblest tiller of the ground.

These institutions show clearly that the Chinese is endowed with a sober and dry imagination, that cold reason predominates, and that the creative power is scarcely developed in him. Accordingly, we find that reverie, depth of feeling, and philosophical research, are unknown to his literature. His artists never attempted to create an ideal: they are materialists and flat imitators of nature, struck rather by the difference than the affinity of forms; their aim is therefore always the characteristical, not the beautiful. This tendency leads them to exaggeration and caricature. Imitating nature in a servile manner, the picturesque is much more in their way than the sculptural; the naked form remained altogether misunderstood by them. They do not see and copy the principal outlines, but the accidental details: the wrinkles, the hair, or the swelling of the muscles. As to drapery, they imitate principally its folds, and seem to forget that they cover a body.

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In regard to the materials employed by the Chinese artist, we find that he excels in casting of metals, and that no stone is so hard as to deter him by technical difficulties from employing it. He carves in wood and ivory, he chisels the marble, he cuts the gem, he moulds the clay, he makes the best pottery. Wood-cutting and lithography were indigenous in China, long before Europe knew them.

We may say without exaggeration, that all the materials, and the most important of the workmanship of the West, are known among the Yellow-race; and that in skill and industry the son of the Celestial empire surpasses the Japetide. But how to deal artistically with a material, how to combine it with, and make it subservient to, the idea of the work of art, this remained an unsolved problem to the Chinaman. Seduced by his mechanical skill, he seeks the highest aim of art in overcoming practical difficulties: accordingly,

Fig. 97.

CHINESE CAMEO, (*Pulszky Coll.*).

Fig. 98.

CHINESE GOD.

he delights in treating his material in the most unsuitable way,—transforming ivory into lace; or sculpturing, from hard stone, figures covered with a net of unbroken meshes. He startles the mind by the patience with which he makes artistical puzzles, instead of exciting the imagination by the composition, and creating delight through the purity and beauty of forms.

The preceding two heads give an idea of the type of the Yellow-race and its art. Fig. 97 is the smiling portrait of a high functionary, from a cameo in my collection. Fig. 98, the head of the frowning God of the Polar star, comes from a statuette in the British Museum. Both of them are intensely characteristic specimens of an art never influenced by foreign agencies; and scarcely showing any affinity with the sculptures, either of our classical western, or of the conterminous Hindoo civilization.

F. P.

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CHAPTER III.

THE CRANIAL CHARACTERISTICS OF THE RACES OF MEN.

BY J. AITKEN MEIGS, M.D.,

LIBRARIAN OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, FELLOW OF THE COLLEGE OF PHYSICIANS, ETC.

MESSRS. NOTT AND GLIDDON:

MY DEAR SIRS.—In answer to your very polite request of June 14th, that I should furnish you with a brief statement of the progress and present condition of *Human Cranioscopy*, and the intimate and important relations which it bears to the great problems of Ethnology, I send you the accompanying sketch, which you must receive *cum grano salis*, inasmuch as it has been drawn up during the hot and oppressive nights of midsummer, and amidst the exacting interruptions necessarily attendant upon the practice of my profession.

Having, as you are aware, devoted some portion of my leisure time, during the summer of 1855, to arranging and classifying the magnificent collection of the late Dr. Morton, preparatory to issuing a fourth edition of the Catalogue (the MS. of which was presented to the Academy of Natural Sciences in December last), I have thought proper to embody in this sketch some notice of the additions and changes which this Collection has undergone since the demise of its illustrious founder. In attempting to set forth, in a general way, the cranial characters which differentiate the Races of Men, I have indicated the true value, not only of the Collection itself, but of the labors of Dr. M. also. For by determining those constant differences which constitute typical forms of crania, we establish the fundamental, anatomical facts or principles upon which a true classification of the human family must be erected.

In the treatment of my subject, you will observe that I have confined myself chiefly to a simple statement of facts, carefully and designedly abstaining from the expression of any opinion upon the prematurely, and perhaps, in the present state of our knowledge, unwisely mooted questions of the origin and primitive affiliations of man. Not a little study and reflection incline me to the belief that long years of severe and earnest research are yet necessary before we can pronounce authoritatively upon these ultimate and perplexing problems of Ethnology.

Very truly yours, &c.,

PHILAD., DECEMBER., 1856. J. AITKEN MEIGS.

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I.

"How much may the anatomist see in the mere skull of man! How much more the physiognomist! And how much the most the anatomist, who is a physiognomist! I blush when I think how much I ought to know, and of how much I am ignorant, while writing on a part of the body of man which is so superior to all that science has yet discovered—to all belief, to all conception!

"I consider the system of the bones as the great outline of man, and the skull as the principal part of that system."

LAVATER, *Essays on Physiognomy.*

A COMPREHENSIVE and carefully conducted inquiry into the cranial characteristics of the races of men, constitutes a subject as unlimited in its extent and variety, as it is important in its results. Such an inquiry is essentially the zoological consideration of man, or, in other words, the consideration of man as a member of the great animal series, and the consequent application to him of those fundamental laws which concern the subordination of parts, and the establishment and correlation of specific forms.

The first step in this inquiry, is the determination of those differences by which we are enabled to discriminate between the human cranium and that of the lower orders of animals. LAWRENCE long ago indicated, in his valuable *Lectures*, the importance of this procedure. "As the monkey-race," says he, "approach the nearest to man in structure and actions, and their forms are so much like the human, as to have procured for them the epithet, *anthropomorphous*, we must compare them to man, in order to find out the specific characters of the latter; and we must institute this comparison particularly with those called orang-outangs."[1] Such a comparison between the cranium of a negro and that of a gorilla, has been admirably drawn by Prof. Owen.[2] The second step leads to a recognition of the points of difference and resemblance between the crania of the various groups composing the human family. Now in elucidating these resemblances and differences, we lay the foundation of anthropology, or man zoologically considered. But our cranioscopy, to be properly initiative or introductory to anthropology, must be comparative,—not humanly comparative only, but zoologically. In other words, as naturalists—using that term in its most comprehensive sense—we must recognize the commence-

[1] Lectures on Comparative Anatomy, Physiology, Zoology, and the Natural History of Man. By Wm. Lawrence, F.R.S. London, 1848, p. 88.

[2] Descriptive Catalogue of the Osteological Series contained in the Museum of the Royal College of Surgeons. II. 785. 1853.

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ment of cranioscopy in the lower series. If we first compare the crania of the lowest types of man with the most anthropoid of those of the monkey group, and then carefully observe the nature of the relation between the so-called superior and inferior forms of each group, respectively, and finally compare these relations together, we commence our studies properly. For in so doing, we in reality study the extent, nature, and significance of the wide gap which appears effectually to separate man from the brute creation. I say, appears — and I say it advisedly, inasmuch as in nature's plan there may be no gap at all; the intervening forms may have become extinct, they may, unknown to us, be living in some unexplored regions of the earth; or they may yet appear, at some future period, to substantiate that harmonious and successional unity which seems to underlie the entire system of the universe.

In the accompanying table will be found a series of figures representing the juvenile, or immature, and adult skulls of the anthropomorphous monkeys, the adult or permanent forms of the lower types both of men and monkeys, and, lastly, a well-known representation of the highest form of the "human head divine," — all arranged in conformity with what appears to be the indication of nature. Such an arrangement shows us, at a glance, that among the different tribes of monkeys, as among the various races of men, there are numerous types or forms of skull; that for each of these natural groups, there is a gradation of cranial forms; that the greatest resemblances between the two groups — resemblances indicating the existence of a transitionary or connecting link as a part of nature's plan—are to be sought for in or between the lower types of each, and not between the lowest man and highest monkey, as is generally supposed; that the undeveloped crania of the Chimpanzee, Orang, and other higher types of monkeys, more closely resemble the human form than when fully evolved; that for each of the lower human types of skull, there appears to exist among the monkeys a rude representative, which seems remotely and imperfectly to anticipate the typical idea of the former, and to bear to it a certain ill-defined relation; and, lastly, that the best formed human skull stands immensely removed from the most perfectly elaborated monkey cranium.

From the comparative methods above referred to, we learn that the human head differs from that of the brute creation in many important respects,—such as the proportion between the size and areas of the cranium and face, the relative situation of the face, the direction and prominence of the maxillæ, the position and direction of the occipital foramen, the proportion of the facial to the cranial half of the occipito-mental diameter, in the absence of the os inter-maxillare,

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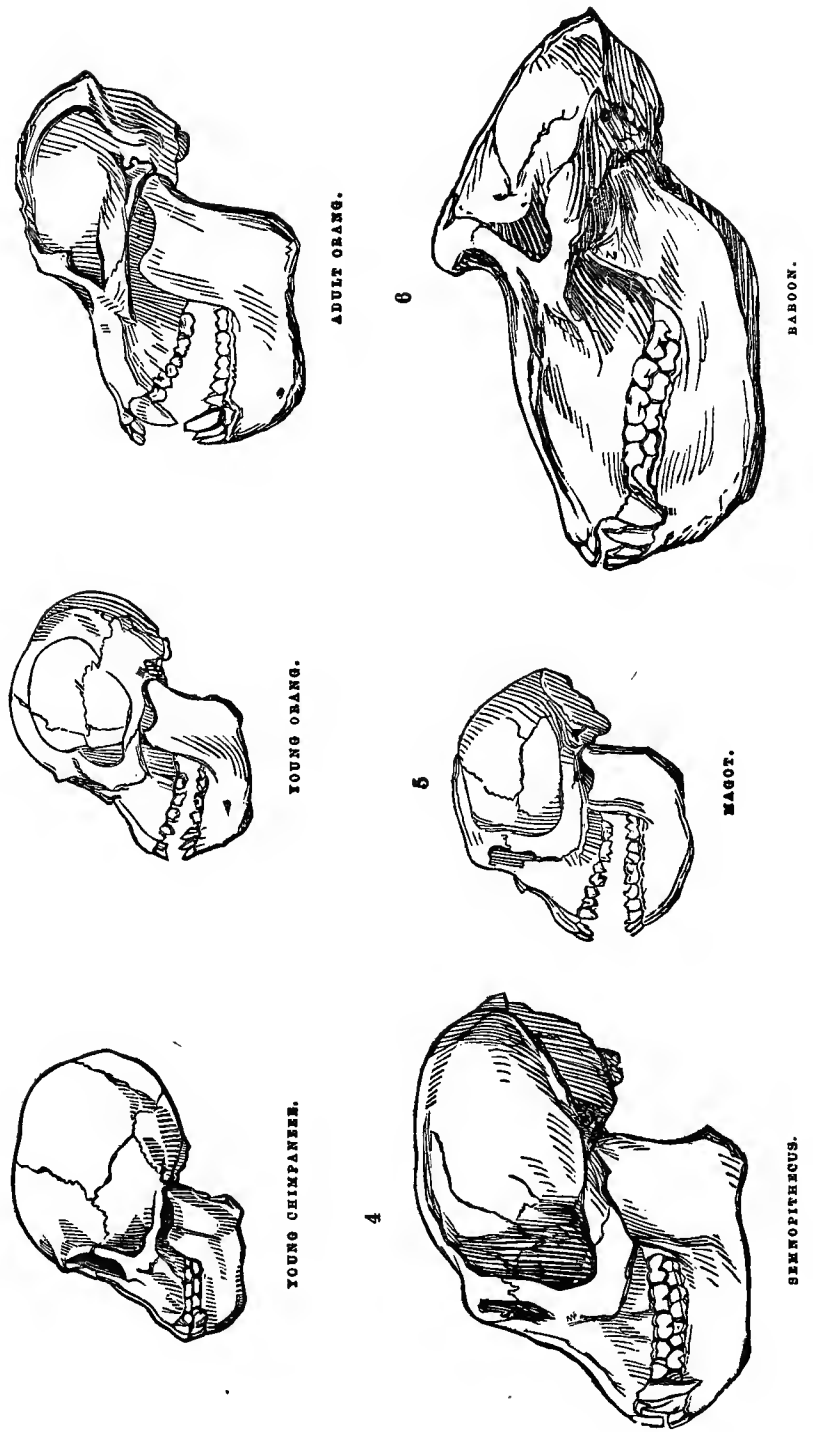

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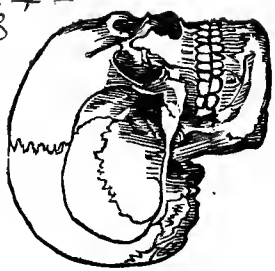
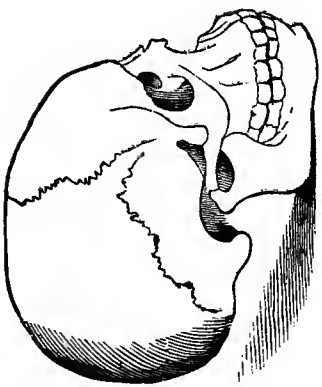
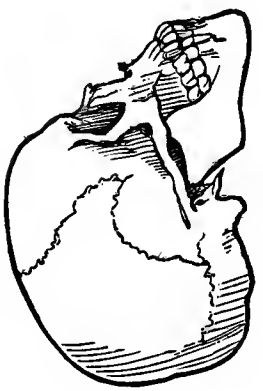


9 GREEK.



8 AUSTRALIAN.



7 NEGRO.

in the number, situation, and direction of the teeth, &c. These are a few of the differential elements which separate man from the quadrumana, and the various genera and species of the latter from each other. But the chief value of these osteological differentia lies in their perfect applicability to man, and the facility with which they enable us to distinguish between the various human types. Thus, in the best developed and most intellectual races, the supra-orbital ridge is smooth, well carved, and not much developed; as we descend towards the lower types, it becomes more and more marked, until, in the African and Australian heads, it has attained its maximum development. In the Orang, this feature begins to assume a greater importance, while in the Chimpanzee, its enormous size renders it a characteristic mark. Here, then, is the evidence, to some extent, of gradation, in a seemingly exclusive ethnographic mark, whose significance is elucidated by a resort to anthropology. Again, it is curious to observe how certain adult animal characters appear in man during the fœtal period only. Thus, in some mammals, as the Rodentia and Marsupialia, we find, as a permanent feature, an inter-parietal bone. In man, the occipital bone consists, at birth, of four parts, which are not consolidated until about the fifth or sixth year. Each of these parts is developed from distinct ossific centres. For the posterior or proral portion, an-

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atomists generally recognise four such centres, arranged in pairs, the two lower uniting first, and afterwards the two upper, so that, between this superior and inferior portion, a line of demarcation —sutura proræ— remains until the time of birth. According to Meckel, the superior portion is developed from two bony puncta. In consequence of this distinct ossification, the superior angle of the os occipitis continues as a separate piece during intra-uterine life, as was long ago noticed and described by Gerard Blasius, in his work (*Anatome Contracta*) published at Amsterdam, in 1666. The interest attached to this embryonic feature arises from its remarkable persistence as a triangular inter-parietal or supra-occipital bone, in juvenile Peruvian skulls, as first pointed out by Dr. F. Bellamy, in a paper read before the Naturalists' Society of Devon and Cornwall, and afterwards by Dr. Tschudi, in a paper on the ancient Peruvians.[3] Dr. Minchin, in a recent highly philosophical article, entitled, *Contributions to Craniology*,[4] while contending for the central or vertical origin of the bi-parietal bones, is disposed to question the existence of this supernumerary bone as an ordinary normal condition of fœtal life. However, his argument on this special point is by no means conclusive. The os inter-maxillare, found in some of the Quadrumana as a permanent character, has also been demonstrated as a transitional mark in the human embryo.[5] Did my space permit, other examples might be given, illustrative of the value of human embryology as a guide in the study of the specific and generic characters of the animal kingdom.

The want of information, such as above set forth, led Monboddo and Rousseau, men of undoubted learning, to speak of the relationship of the genus Homo to the Quadrumana in terms contradictory to all correct anatomy and physiology. "Il est bien démontré," says Rousseau, "que le Singe n'est pas une variété de l'Homme, non seulement parcequ'il est privé de la faculté de parler, mais, surtout, parcequ'on est sur que son espèce n'a point la faculté de se perfectionner, qui est le caractère spécifique de l'espèce humaine;—expériences qui ne paroissent pas avoir été faites, sur le Pongos et l'Ourang-Outang, avec assez de soin, pour en tirer la même conclusion."[6] Monboddo, less cautious, expressed his belief in the specific identity of man and the orang. Even White, not properly understanding Nature's method in that "Gradation" upon which he wrote,

[3] Edinburgh New Philosophical Journal, 1844, p. 252.

[4] Dublin Quarterly Journal of Medical Science, Nov., 1856.

[5] See some remarks on the inter-maxillary bone, by Prof. Leidy, in *Quain and Sharpey's Human Anatomy*, 1st Amer. Edit., vol. 1, p. 143.

[6] Discours sur les Causes, &c., note 10.

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speaks of the orang as having the person, manner, and actions of man.[7]

Still higher and more complex propositions engage the attention of the cranioscopist. What is the nature of the skull as a whole, and what is the nature respectively of its different parts? Why should it be composed of 22 bones, and no more? What is the meaning of the sutures, and what their relation to individual and race forms of the skull? What are the relations of the cranium to the bony skeleton on the one hand, and to the delicate organ of thought and sensation, which it encloses, on the other? What are the laws of its development? When has it obtained its full growth, and what are the indications of this fact? Is this period the same in all the varieties of men? Does the cranium give form to the brain, or, vice-versa, does the latter mould the former to itself? What are the relations of cranial form to mental and moral manifestations,—"to capability of civilization, and actual progress in arts, sciences, literature, government, &c.?" Is there one, or are there many primitive cranial types or forms? If one, how have originated the distinctions which we now perceive? If many, what are the distinguishing peculiarities of the primitive forms? Are these peculiarities primordial and constant, or can they be adequately accounted for by the action of external causes? To what extent is the form of the cranium modified by climatic conditions, habits of life, age, sex, intermarriage, &c.? Does intellectual cultivation modify the form of the skull? Can acquired modifications of cranial form be transmitted hereditarily? If so, what are the laws of this transmission? Is there for skull-forms, as Flourens has said of races, "an art of preserving their purity, of modifying them, altering and producing new ones?"[8] Are the few leading cranial types which we at present encounter in the human family, primary results of certain cosmogonic causes, which ceased to act the moment after their formation; or, are they the secondary, or even tertiary and quaternary results, as Count de Gobineau supposes, of the intermixture of races, occurring at periods antedating all historical and monumental record?[9]

Such are a few of the leading questions which arise from a thoughtful examination of the human cranium,—questions which I indicate here, rather as exemplifying the scope and philosophical character of cranioscopy, than with the view of answering them in detail. In-

[7] An Account of the Regular Gradation in Man, and in different Animals and Vegetables, &c. By Chas. White. London, 1799.

[8] De l'Instinct et de l'Intelligence des Animaux, par P. Flourens: 3me Edit., Paris, 1851, p. 121.

[9] Essai sur l'Inégalité des Races Humaines, par M. A. de Gobineau: Paris, 1853, vol. 1, p. 245.

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deed, such an attempt, in the present state of our knowledge, would be premature, and therefore liable to the errors inseparable from hasty examinations. Some of these questions, it is true, have already been answered; some are being solved even now; while others, such as the law of divergent forms, are professedly among the most obscure problems in the whole range of scientific inquiry. Nevertheless, I call the attention of the reader to a brief and general analysis of some of the most prominent of these subjects, as the best method of showing the importance of this newest of the sciences, its nature and power, the methods of procedure adopted, and the results which may reasonably be expected to flow from its cultivation. And I do this designedly, for I have been actuated, in contributing this paper to a popular scientific work, with the desire of presenting a novel, and with me, favorite study, in its proper light before the people, hoping thereby to arrest the progress of certain ill-founded suspicions, which, in some quarters, have sprung up as the result of a fear that the inquiry was detrimental, instead of advantageous, to the best interests of man.

Cranioscopy is a new science. Dating from the time of BLUMENBACH, with whom it fairly begins, it is scarcely 70 years old; and its cultivators, even at the present moment, number but a few names. Indeed, so little attention has been paid, in general, to the Natural History of Man, that we find LAWRENCE, so late as the summer of 1818, expressing himself in the following words:[10] "Accurate, beautiful, and expensive engravings have been executed of most objects in natural history, of insects, birds, plants: splendid and costly publications have been devoted to small and apparently insignificant departments of this science; yet the different races of man have hardly, in any instance, been attentively investigated, described, or compared together: no one has approximated and surveyed in conjunction their structure and powers: no attempt has been made to delineate them, I will not say on a large and comprehensive, but not even on a small and contracted scale; nobody has ever thought it worth while to bestow on a faithful delineation of the several varieties of man one-tenth of the labor and expense which have been lavished again and again on birds of paradise, pigeons, parrots, humming-birds, beetles, spiders, and many other such objects. Even intelligent and scientific travellers have too often thrown away on dress, arms, ornaments, utensils, buildings, landscapes, and obscure antiquities, the utmost luxury of engraving and embellishment, neglecting entirely the being, without reference to whom, none of these objects possess either value or interest. In many very expensive works, one is dis-

[10] Op. cit., p. 84.

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appointed at meeting, in long succession, with prints of costumes — summer dresses and winter dresses, court and common dresses — the wearer, in the meantime, being entirely lost sight of. The immortal historian of nature seems to have alluded to this strange neglect in observing, 'quelqu' interêt que nous ayons a nous connaître nous mêmes, je ne sais si nous ne connaissons pas mieux tout ce qui n'est pas nous."[11] Indeed, whether we investigate the physical or the moral nature of man, we recognize at every step the limited extent of our knowledge, and are obliged to confess that ignorance which a Rousseau and a Buffon have not been ashamed to avow." — "The most useful, and the least successfully cultivated of all knowledge, is that of man; and the description on the temple of Delphi (Γνωθι σεαυτον) contained a more important and difficult precept than all the books of the moralists."[12] Twelve years after this was written, we behold Dr. MORTON compelled to conclude a lecture upon "*The different Forms of the Skull as exhibited in the Five Races of Men*," without being able to present to his audience either a Mongolian or a Malay skull.[13] Our surprise at this will be somewhat lessened, however, when we call to mind the fact that, at this time, the celebrated Blumenbachian collection contained but 65 skulls. And now, in 1856, we are again reminded, by a British ethnographer, of the difficulties which beset the study of cranioscopical science. "It is truly surprising," says DAVIS, "how great the destruction of human crania, all-important for our design, has been, and how rapidly all such genuine remains of the Britons, Romans, and Anglo-Saxons are now escaping from the grasp of science. The progressive enclosure of our wild tracts, the extension of cultivation, and the introduction of a more perfect agriculture, have in modern times destroyed multitudes of the oldest sepulchres, and all that they contained. And it is unfortunate that the researches of antiquaries, who have opened barrows and excavated cemeteries with inquiring eyes, have been almost equally fatal to the cranial remains of their occupants. Arms, personal ornaments, and other relics deposited with the dead, have generally engrossed attention, to the exclusion of the tender and fragile bones of their possessors."[14] Notwithstanding these obstacles,

[11] Buffon, "De la Nature de l'Homme," Histoire Naturelle Générale et Particulière. Paris, 1749, T. 2, p. 429.

[12] Discours sur l'Inegalité; Preface.

[13] Letter to J. R. Bartlett, Esq., Transactions of the American Ethnological Society, Vol. ii., New York, 1848, p. 217.

[14] Crania Britannica. Delineations and Descriptions of the Skulls of the Early Inhabitants of the British Islands; together with Notices of their other Remains. By J. Barnard Davis, M. R. C. S., F. S. A., etc., and John Thurnam, M. D., F. S. A., &c. London, 1856, Decade I., p. 2. Judging from the first decade, this admirable work promises, when completed, to

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however, it is cheering to know that the labors of BLUMENBACH, MORTON, PRICHARD, LAWRENCE, RETZIUS, NILSSON, and others, have at length resulted in the establishment of a *Thesaurus Ethnologicus*, consisting of a vast number of well-ascertained facts waiting the application of more efficient methods of generalization.

Again, the novelty of the science, the startling character of some of its propositions, and the unfortunate errors which have been foisted upon it by certain hasty theorizers, whose speculative zeal has outrun the slow accumulation of facts; and its apparent relation to a dubious science,[15] have all conspired to bring the cranioscopical department of Human Natural History into disrepute. But its political importance alone outweighs these errors; for amidst its manifold details we must seek for the reasons of the diversities so evident in the human family; the extent, permanence, and meaning of these diversities; and the best means of harmonizing the discrepancies in modes of thought and action flowing therefrom. It endeavors to elucidate the societary condition of man by appealing to a correct anatomy and physiology, and the zoological laws based upon these. Not a few ethnologists have indicated its importance in their writings. Thus COURTET DE LISLE[16] attempts — and I think successfully — to show that Political Economy is necessarily founded upon our science. KNOX[17] and ELLIS[18] dwell with emphasis upon its political significance, while the COUNT DE GOBINEAU[19] seeks in it the solution of those sudden and apparently inexplicable changes which have given to European history so enigmatical a character. A moment's reflection will show that the connection here attempted to be established is a perfectly logical one. If the acts of an individual are to a considerable extent

constitute the most valuable contribution to Ethnography that has appeared since the publication of the Crania Ægyptiaca of Morton. The text betrays evidence of much thought, extensive research, and critical observation of a high character, while the numerous lithographic representations of ancient British and Roman Crania are executed in the finest style of art.

[15] The fundamental propositions of Phrenology are equally true of Cranioscopy. Of the truth of these propositions, there can be little doubt. Comparative Anatomy, Physiology, and Pathology, all tend to substantiate the multiple character of the structure and function of the brain, and demonstrate that mind is not only connected with brain, but connected with a particular portion of it. Little doubt can be entertained of the general adaptation of the skull to its contents. Thus mind, brain, and cranium are connected. Thus far science confirms Phrenology; but in the "mapping-out details," to which the followers of Gall and Spurzheim have so unwarrantably resorted, Phrenology is no longer a science.

[16] La Science Politique fondée sur la Science de l'Homme, &c., par V. Courtet de Lisle. Paris, 1838.

[17] The Races of Men: a Fragment, by Robert Knox, M.D., &c. Amer. Edit., Philada., 1850.

[18] Irish Ethnology, Socially and Politically Considered, by Geo. Ellis. Dublin, 1852.

[19] Op. cit.

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the outward expressions, or functional manifestations of the organism, and if the acts of a society are the sum total of the individual acts of its members, then it necessarily follows, that the civil history of a nation in great measure arises from, and is dependent upon, the natural or physical characters of its citizens. Thus, then, paradoxical as it may seem, the polygamy of the Orient, the cannibalism of the South Sea Islands, the differences between the civilizations of Europe and Asia, between the artistic powers of the negro and the "Caucasian," are so many indications of the philosophical value of human osteology.

But to the American citizen, especially, does our science recommend itself as one worthy of all consideration, since upon American soil, representatives from nearly all parts of the earth have been gathering together during the last two hundred years. The peaceful and semi-civilized Toltecan man—once the proud master of our continent, which he busily dotted with forts and mounds, with mighty monuments and great cities—has just been swept away by the unrelenting hand of the longer-headed but less intellectual nomade of the North—the red Indian—who, in his turn, is suffering annihilation in the presence of, and by contact with the yet larger-headed Teuton of Europe. While the lozenge-faced Eskimo of our Polar coast-line is mysteriously fading away, under the action of influences tending to render the extreme north an uninhabited waste,[20] from the old world a steady stream of human life, a heterogeneous exodus of various races of men, is inundating our soil, and threatening to change our entire political aspect by the introduction of novel physical and intellectual elements. The Scandinavian, the German, the Sclavonian, and the Kelt of Southern Europe, the follower of Mahomet, and the disciple of Confucius, the aboriginal Red Man, and the unhappy children of Africa, have in congress assembled in the New World—not brought together fortuitously, for chance has nothing to do with the history and destiny of nations—but impelled by laws of humanitarian progress and change, as yet improperly understood. All these have assembled to work out the problem of human destiny on the one hand, and the stability of our boasted republic on the other. Let the American reader steadily contemplate this picture, and study its details; let him give ear to some of the momentous questions which are anxiously disturbing the peace and quietness of this congress,—the ultimate disposition, for example, of the prognathous man, imported by our English forefathers, and left with us, a fearful element of discord,—the operations of the "manifest destiny princi-

[20] See The Natural History of the Human Species, &c., By Lieut. Col. Chas. Hamilton Smith; edited by S. Kneeland, Jr., M. D. Boston, 1851, p. 294.

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ple" in the Nicarauguan Republic, &c. Furthermore, let him contemplate the members of our National Legislature daily debating questions involving the antipathies and affiliations of the races of men, without the slightest notion of their true ethnological import; let him not be unmindful, also, of the various political parties and secret associations which have suddenly sprung up in our midst, and are based upon ethnical peculiarities; let him behold the Chinaman celebrating his polytheistic worship in the heart of a Christian community, and within the shadow of a Christian temple; while upon Beaver Island, and about Salt Lake, another institution of the East, polygamy, flourishes in rank luxuriance. Let the American reader, I say, contemplate all this, and in his anxiety to know the causes of these strange phenomena, the labors of the cranioscopist, in conjunction with those of the philosophical historian will assume their full importance.

From a long and comprehensive study of history, a European thinker,[1] of profound erudition, has at length, in the diversified ethnographic peculiarities of the different races of men, detected and formuled the cause of the apparently mysterious revolutions and final decadence of once-flourishing nations.—"Toute agglomération humaine, même protégée par la complication la plus ingénieuse de liens sociaux, contracte, au jour même où elle se forme, et caché parmi les éléments de sa vie, le principe d'une mort inévitable. . . . Oui, réellement c'est dans le sein même d'un corps social qu'existe la cause de sa dissolution; mais, quelle est cette cause?—La *dégénération*, fut-il répliqué; les nations meurent lorsqu'elles sont composées d'éléments *dégénérés*. . . . . Je pense donc que le mot dégénéré, s'appliquant à un peuple, doit signifier, et signifie que ce peuple n'a plus la valeur intrinsèque qu'autrefois il possédait, parce qu'il n'a plus dans ses veines le même sang dont des alliages successifs ont graduellement modifié la valeur; autrement dit, qu'avec le même nom, il n'a pas conservé la même race que ses fondateurs; enfin, que l'homme de la décadence, celui qu'on appelle l'homme dégénéré, est un produit différent, au point de vue ethnique, du héros des grandes époques. Je veux bien qu'il possède quelque chose de son essence; mais, plus il dégénère, plus ce quelque chose s'atténue. . . . . Il mourra définitivement, et sa civilisation avec lui, le jour où l'élément ethnique primordial se trouvera tellement sub-divisé et noyé dans des apports de races étrangères, que la virtualite de cet élément n'exercera plus désormais d'action suffisante."

Undoubtedly, the Science of Man commences with BUFFON and LINNÆUS—Buffon first in merit, though second in the order of time.

[1] De Gobinean, op. cit., pp. 3, 38, 39, 40.

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By the writers anterior to their day, but little was done for human physical history. Among the classical authors, THUCYDIDES, the type of the Grecian historians, treated of man in his moral and political aspects only. The nearest approximation to a physical history is contained in his sketch of the manners and migrations of the early Greeks, and in his history of the Greek colonization of Sicily. The books of HERODOTUS have more of an ethnographic character, in consequence of the account which he gives of the physical appearance of certain nations, whose history he records. HIPPOCRATES theorizes upon the influence of external conditions upon man. ARISTOTLE and PLATO also distantly allude to man in his zoological character. From the Romans we derive some accounts of the people of North Africa, of the Jews and ancient Germans, and of the tribes of Gaul and Britain. Of these, as LATHAM has appropriately observed, "the Germania of Tacitus is the nearest approach to proper ethnology that antiquity has supplied."

LINNÆUS and BUFFON, in their valuation of external characters — such as color of skin, hair, &c., — bestowed no attention upon the osseous frame-work. Of cranial tests, and of bony characters in general, they knew nothing, or, knowing, considered them of no value. Hence, although LINNÆUS, in his *Systema Naturæ*, brought together the genera *Homo* and *Simia*, under the general title *Anthropomorpha*, and although BUFFON, filled with the importance of human Natural History, devoted a long chapter to the varieties of the human species, yet the first truly philosophical and practical recognition of the zoological relations of man appears in the anthropological introduction with which the illustrious CUVIER commences his far-famed *Règne Animal.*

By the publication of his *Decades Craniorum*—commenced in 1790, and completed in 1828—BLUMENBACH early occupied the field of the comparative cranioscopy of the Races of Men. In consequence of the application of the zoological method of inquiry to the elucidation of human natural history, that work at once gave a decided impulse to the science of Ethnography, and for a long time exerted a considerable influence on the views of subsequent writers upon this and kindred subjects. Unable to satisfy the constantly increasing demands of the present day, its importance has sensibly diminished. The general brevity of the descriptions, the want of both absolute and relative measurements, and the defective three-quarter and other oblique views of many of the skulls, render it highly unsatisfactory to the practical cranioscopist. Moreover, the number of crania (sixty-five) possessed by BLUMENBACH was too small, not only to establish the characteristics of the central or standard cranial type of

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each of the many distinct groups composing the human family, but was also found to be inadequate to demonstrate the extent, relations, and true value of the naturally divergent forms of each group. Prior to the time of BLUMENBACH, however, DAUBENTON had already written the first chapter in cranial osteology, by his observations on the basis cranii, and the variations in the position of the foramen magnum occipitis.[22] For the second chapter — the study of the cranium in profile—we are indebted to CAMPER, who identified his name with the facial angle.[23] SŒMMERING applied the occipito-frontal arch, the horizontal periphery, and longitudinal and transverse diameters of the cranium to demonstrate the differences between the heads of Europeans and Negroes.[24] During the publication of the *Decades*, the celebrated JNO. HUNTER, of London, began his scientifico-medical career with an inaugural thesis upon the subjects under consideration.[25] Nineteen years after the publication of the pentad, by which the six decades of BLUMENBACH were completed, MORTON'S great and original work, the *Crania Americana*, was given to the world.[26] From that time, human cranioscopy asserted its claims to scientific consideration, and gave a decided impetus to anthropology. In 1844, from the same pen, apeared the *Crania Ægyptiaca*,[27] which PRICHARD hailed as a most interesting and really important addition to our knowledge of the physical character of the ancient Egyptians.[28]

The only elaborate English contribution to cranioscopy, is the Crania Britannica of Messrs. Davis & Thurnam, the first decade of which has but recently been issued from the British press. To the sterling merits of this work allusion has already been made. Of the scientific labors of those eminent Scandinavian craniologists and antiquarians, Professors Retzius of Stockholm, Nilsson of Lund, and Eschricht of Copenhagen, I need not here speak. To the ethnographic student the writings of these *savants* have been long and favorably known. The French have done but little in this particu-

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[22] See Memoirs of the Royal Academy of Sciences for 1764. *Sur la Différence du Grand Trou occipital dans l'Homme et dans les autres Animaux.*

[23] Dissertation sur les Variétés Naturelles, &c., ouvrage posthume de M. P. Camper. Paris, 1792.

[24] Ueber die Körperliche Verschiedenheit des Negers vom Europaer. Frankfurt und Mainz, 1785, p. 50, et seq.

[25] Disputatio Inauguralis quædam de Hominum Varietatibus et harum causis exponens, &c. Johannes Hunter, Edinburgi, 1775.

[26] Crania Americana; or a Comparative View of the Skulls of various Aboriginal Nations of North and South America, &c. By Samuel George Morton, M. D. Philada., 1839.

[27] Crania Ægyptiaca; or, Observations on Egyptian Ethnography, &c. By Samuel George Morton, M. D. Philada., 1844. Published originally in the Transactions of the Amer. Philosoph. Society, vol. IX.

[28] Nat. Hist. of Man, 3d edit. p. 570.

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lar department of science. The names of Serres, Foville,[29] Gosse,[30] Dumoutier, Blanchard,[31] and others, however, are before the public in this connection. As far as I have been able to ascertain, craniology has received more attention at the hands of the Germans. Prof. Engel, of Prague, has given us a philosophical dissertation upon cranial forms, the mensuration of the skull, &c.[32] To Prof. Zeune, we are indebted for a classification of skulls.[33] Dr. C. G. Carus, in an elementary work on Cranioscopy, indicates and developes to some extent the principles which should guide us in our examination of the different cranial formations, in their relation to psychical conditions.[34] In a subsequent work, he comments upon and explains these principles more fully.[35] Passing over the names of Bidder,[36] Bruch,[37] Spœndli,[38] Kölliker,[39] Virchow,[40] Lucæ,[41] Fitzinger[42] and others, I must conclude this hasty enumeration by calling attention to the laborious and masterly work of Prof. Huschke, of Jena, — the result, as we are informed in the preface, of nine years study and reflection.[43]

With the exception of an admirable paper on the *Admeasurements of Crania of the principal groups of Indians of the United States*, contributed by Mr. J. S. PHILIPS to the Second Part of Schoolcraft's work on the Aboriginal Races of America,[44] nothing has been done for craniology on this side of the Atlantic since the demise of Dr. MORTON. Indeed, the labors of MORTON embody not only all that

[29] Déformation du Crâne résultant de la méthode la plus générale de couvrir la Tête des Enfants, 1834. Also, Traité complet de l'Anatomie, de la Physiologie et de la Pathologie du Système Nerveux, 1844.

[30] Essai sur les Déformations artificielles du Crâne. Paris, 1855.

[31] Voyage au Pole Sud et dans l'Océanie, &c., Anthropologie, Atlas par Dr. Dumoutier; texte par Émile Blanchard. Paris, 1854.

[32] Untersuchungen über Schädelformen. Von Dr. Joseph Engel, Prof., Prag, 1851.

[33] Über Schädelbildung zur festern Begründung der Menschenrassen. Von Dr. A. Zeune. Berlin, 1846.

[34] Grundzüge einer neuen und wissenschaftlich begründeten cranioscopie (Schädelehre) von Dr. C. G. Carus. Stuttgart, 1841.

[35] Atlas der Cranioscopie oder Abbildungen der Schædel- und Antlitzformen Beruehurter oder sonst merkwuerdiger Personen von Dr. C. G. Carus. Leipzig, 1843.

[36] De Cranii Conformatione. Dorpat, 1847.

[37] Beiträge zur Entwickelung des Knochensystems.

[38] Ueber den Primordialschädel. Zurich, 1846.

[39] Theorie des Primordialschädels. (Zeitschrift fur Wissenschaftliche Zoologie. 2 Bd.)

[40] Ueber den Cretinismus, namentlich in Franken und über pathologische Schädelformen. (Verhandl. der physik. — medic. Gesellschaft in Würzburg, 1852, 2 Bd.)

[41] De facie humana, Heidelbergæ, 1812.—De Symmetria et Asymmetria organorum animalitatis, imprimis cranii, Marburgi, 1839.—Schädel abnormer Form in Geometrischen Abbildungen, von Dr. J. C. G. Lucæ. Frank. am Main, 1855.

[42] Über die Schädel der Avaren, &c. Von L. J. Fitzinger. Wien., 1853.

[43] Schædel, Hirn und Seele des Menschen und der Thiere nach alter, Geschlecht und Race dargestellt nach neuen methoden und Untersuchungen von Emil Huschke. Jena, 1854.

[44] Information respecting the History, Condition, and Prospects of the Indian Tribes of the United States. By H. R. Schoolcraft. Part II. Philadelphia, 1852.

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has been accomplished for this science in America, but also the chief part of all the contributions which it has, from time to time, received from different sources. It is well known to the ethnological world, that at the time of his death (1851), he was slowly and carefully maturing his views upon the great leading questions of his favorite science, by researches of the most varied and extensive character. From the cranioscopical details which constitute so important a feature in that elaborate work, the *Crania Americana*, he had been gradually and almost insensibly led to occupy a more comprehensive field — a field embracing ethnology in its physiological and archæological aspects. The *Crania Ægyptiaca* was the forerunner of a contemplated series of philosophical generalizations in Anthropology, — the matured and positive conclusions of years of severe and cautious study. In this series, so long contemplated, so often delayed for critical examination, and at last so unexpectedly, and I may add, so unfortunately arrested, Dr. MORTON fondly hoped to develope and clearly demonstrate the fundamental principles or elements of scientific ethnology. But Providence had ordered otherwise; for at this critical juncture — so critical for the proper exposition of Dr. M.'s long treasured and anxiously examined views, as well as for the proper direction of the infant science — he was stricken down, and the rich mental gatherings of a life-time dissipated in a moment.[45]

Through the munificent kindness of a number of our citizens, his magnificent collection of Human Crania, recently increased by the receipt of sixty-seven skulls from various sources, has been permanently deposited in the Museum of the Academy,[46] a silent but expressive witness of the scientific zeal, industry, and singleness of purpose of one who, to use the language of Mr. DAVIS, "has the rare merit, after the distinguished Göttingen Professor, of having by his genius laid the proper basis of this science, and by his labors raised upon this foundation the two first permanent and beautiful superstructures, in the Crania Americana, and the Crania Ægyptiaca."[47]

Prior to his decease, Dr. M. had received about 100 crania, in addition to those mentioned in the third edition of his Catalogue. Since 1849, therefore, the collection has been augmented by the addition of 167 skulls. Very recently I have carefully inspected, re-arranged, and labelled it, and prepared for publication a new and corrected edition of the Catalogue. At present the collection embraces 1035 crania, representing more than 150 different nations,

[45] Unpublished Introduction to "Descriptions and Delineations of Skulls in the Mortonian Collection."

[46] See Proceedings of the Academy, Vol. VI. pp. 321, 324.

[47] Crania Britannica, decade I., p. 1.

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tribes, and races. It occupies sixteen cases on the first gallery, on the south side of the lower room of the Museum. For convenience of study and examination, I have grouped it according to Race, Family, Tribe, &c., strictly adhering, however, to the classification of Dr. Morton.

The crania are distributed as follows:[48]

I. Caucasian Group.

1. *Scandinavian Race.*

Norwegian	1
Swedish Peasants	7
Finland Swedes	2
Sudermanland Swedes	3
Ostrogoth	1
Turannic Swede	1
Cimbric Swedes	3
Swedish Finns	3
	21

2. *Finnish or Tchudic Race.*

True Finns	10

3. *Suevic Race.*

Germans	11
Dutchman	1
Prussians	4
Burgundian	1
	17

4. *Anglo-Saxon.*

English	4

5. *Anglo-American.* 8

6. *Celtic Race.*

Irish	8
Celtic (?) heads from Catacombs of Paris,	4
Celt (?) from the field of Waterloo	1
	13

7. *Selavonic Race.*

Sclavonians	2

8. *Pelasgic Race.*[49]

Ancient Phœnician	1
Ancient Roman	1
Greek	1
Circassians	4
Armenians	6
Parsees	2
Affghan	1
Græco-Egyptians	23
	39

9. *Semitic Race.*

Arabs	5
Hebrews	8
Abyssinian	1
	14

10. *Berber Race. (?)*

Guanché	1

11. *Nilotic Race.*

Ancient Theban Egyptians	34
" Memphite "	17
" Abydos "	2
" Alexandrian "	3
Egyptians from Gizeh	16
Kens or Ancient Nubians	4
Ombite Egyptians	3
Maabdeh Egyptians	4
Miscellaneous	5
Fellahs	19
	107

12. *Indostanic Race.*

Ayras (?)	6
Thuggs	2
Bengalese	32
Uncertain	3
	43

13. *Indo-Chinese Race.*

Burmese	2

II. Mongolian Group.

1. *Chinese Race.*

Chinese	11
Japanese	1
	12

[48] It is proper to observe, that the above table is not an attempt at scientific classification, but simply an arrangement adopted for convenience of study and examination.

[49] Dr. Morton used the term *Pelasgic* too comprehensively. The Circassians, Armenians and Persians should not be placed in this group.

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2. *Hyperborean Race.*

Burat Mongol	1
Kamschatkan	1
Kalmuck	1
Laplanders	4
Hybrid Laplander	1
Eskimo	6
	14

III. Malay Group.

1. *Malayan Race.*

Malays	24
Dyaks	2
	26

2. *Polynesian Race.*

Kanakas	7
New Zealanders	4
Marquesas	1
	12

IV. American Group.

1. *Barbarous Race.*

a. North Americans.

Arickarees	3
Assinaboins	3
Chenouks	8
Oregonians	6
Cherokees	6
Chetimaches	2
Chippeways	2
Cotonays	3
Creeks	4
Dacotas	2
Hurons	4
Iroquois	3
Illinois	2
Klikatat	1
Lenapes	10
Mandans	7
Menominees	7
Miamis	12
Minetaris	4
Mohawks	3
Naas	2
Narragansets	10
Natchez	2
Naticks	5
Nisqually	1
Osages	2
Otoes	4
Ottawas	4
Ottigamies	4
Pawnees	2
Penobscots	2
Pottawatomies	4
Sauks	3
Seminoles	16
Shawnees	4
Shoshones	4
Upsarookas	2
Winnebagos	2
Yamassees	3
Californians	2
Miscellaneous	46
	216

b. Central Americans.

Maya	1
Fragments from Yucatan	2
	3

c. South Americans.

Araucanians	12
From Mounds	2
Charibs	3
Patagonians	3
Brazilian	7
	27

2. *Toltecan Race.*

a. Peruvian Family.

Aricans	20
Pachacamac	104
Pisco	62
Santa	8
Lima	7
Callao	3
Miscellaneous	9
Elongated skulls from Titicaca, &c.	8
	221

b. Mexican Family.

Ancient Mexicans	24
Modern Mexicans	9
Lipans	2
	35

V. Negro Group.

1. *American born,*	16
2. *Native Africans,*	88
3. *Hovas,*	2

4. *Alforian Race.*

Australians	11
Oceanic Negroes	2
	119

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VI. Mixed Races.	
Copts	5
Negroid Egyptians	12
Nubians	4
Hispano-Peruvian	2
Negroid-Indian	3
Hispano-Indian	1
Malayo-Chinese	1
Mulattoes	2
	30
VII. Lunatics and Idiots,	18
VIII. Illustrative of Growth,	7
Phrenological Skulls,	2
Nation uncertain,	11
Total,	1035

II.

"Cranium, quippe quod omnium corporis partium nobilissimas includit, indolem ac proprietatem cæterorum organorum repræsentare existimatur; nam quidquid proprii variæ illius partes præ se ferunt, hic parvo spatio conjunctum, et liniamentis, quæ extingui et deleri nunquam possunt, expressum reperitur. Illud adumbrationem exhibet imaginis, quam spectator peritus ex singulis partibus vivide sibi ante oculos fingere potest."—Huecк.

In the human brain we find those characteristics which particularly distinguish man from the brute creation. The differences between the various races of men are fundamental differences in intellectual capacity, as well as in physical conformation. The brain is the organ or physical seat of the mind, and variations in its development are, as is well known, the constant accompaniments of mental inequalities. Hence, in the variations in size, texture, &c., of the encephalon, and the proportions of its different parts, we are necessarily led to seek in great measure for the causes which so widely and constantly dispart the numerous families, which, in the aggregate, constitute mankind. In accordance with its great importance and dignity, the brain has been carefully deposited in an irregular bony case,—the calvaria—to which are attached certain bony appendages for the lodgment of the organs of the senses, by which the brain, and through it the mind—the mental attribute of the living principle—is brought into relation with external nature. Now as the configuration of the brain is, in general, expressed by that of its osseous covering, and as the development of the facial skeleton affords an excellent indication of the size of the organs which it accommodates, it follows that in the size of the head and face, and their mutual relations, we find the best indications of those mental and animal differences which, under all circumstances and from ante-historic times, have manifested themselves as the dividing line between the Races of Men. Moreover, if the construction of each and every part of the fabric is in harmony

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with, and to a certain extent represented in that of all other parts,[50]— as the laws of the philosophico-transcendental anatomy seem firmly to have established, — it will be evident that the cranium is the index, so to speak, of the entire economy; for the relation between the cranium on the one hand, and the face, thorax, and abdominal organs, respectively, on the other, or, in other words, between the cerebral or intellectual lobes of the brain, and the sensory ganglia, and nerves, is the relation of mental powers to animal propensities, and exactly upon this relation depends the nature and character of the individual man, and the family group to which he naturally belongs. Examples of this fact are everywhere to be found, alike in the transitionary, as in the extreme specimens of the human series. Thus it is a general and well-marked truth, that in those inferior Races — the so-called prognathous — characterized by a narrow skull, receding forehead, and enormous anterior development of the maxillæ, the mental is in entire abeyance to the animal; so that their sensuality is only equalled by their stupidity, as one might readily infer from the ample accommodations for the organs of the senses. The pyramidal type is another inferior form, singularly analogous to the prognathous in certain respects, but differing from it in others hereafter to be mentioned. Races possessing this form of cranium, manifest corresponding peculiarities in intellectual power.

Undoubtedly, then, the human cranium recommends itself to our earnest attention as the "best epitome of man," — the individual in the concrete; or, as Zeune has beautifully expressed it, "der Blüthe des ganzen organischen Leibes und Lebens;" and notwithstanding the adaptation between it and the rest of the skeleton — an adaptation declaring itself in relations of size, function, nutritive, and developmental processes, &c. — we may study the cranium by and for itself, with reasonable hopes of success.

As yet, the labors of the cranioscopist have given to anthropology comparatively few fundamental and well established facts. Of these, the most important, probably, as well as the best substantiated, is that of the permanency and non-transmutability of cranial form and characteristics. "There is, on the whole," says Lawrence, "an undeniable, nay, a very remarkable constancy of character in the crania of different nations, contributing very essentially to national peculiarities of form, and corresponding exactly to the features which

[50] "Tout être organisé forme un ensemble, un système unique et clos, dont les parties se correspondent mutuellment, et concourent à la même action définitive par une réaction réciproque. Aucune de ces parties ne peut changer sans que les autres ne changent aussi, et par conséquent chacune d'elles prise séparément indique et donne toutes les autres." CUVIER. *Discours sur les Révolutions du Globe; rédigés par le Dr. Hoefer. Paris*, 1850, *p.* 62

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characterize such nations."[51] Nor does this fact stand alone. It is associated with another which should never be lost sight of in all our speculations upon the unity or diversity, geographical origin and distribution, affiliation and antiquity of the races of men. I allude to that insensible gradation which appears to be the law of cranial forms, no less than of all the objects in nature. From the isolation and exclusive consideration of these facts, have resulted not a few erroneous assertions, which have tended to embarrass the science. Thus, it has been considered, in general, a matter of but little difficulty to discriminate between the crania of different races. But those who are accustomed to this kind of examination, know that this statement is true only for the standard or typical forms of very diverse races, and that as soon as certain divergent forms of two allied races or families are compared, the difficulties become very apparent. On the other hand, it has been affirmed, that in any one nation it is easy to point out entirely dissimilar types of configuration. Thus the distinguished anatomist, Prof. M. J. Weber, misled apparently by the restricted and artificial classification of Blumenbach, arrives at the general conclusion that "there is no proper mark of a definite race-form of the cranium so firmly attached that it may not be found in some other race."[52] The assumption of the universality of certain ethnical forms, though countenanced by more than one writer, does not rest upon sufficient evidence to warrant its acceptance. Another prevalent but equally gratuitous notion is, that the more ancient the heads, the more they tend to approximate one primitive form or type. What this primitive model is like, has not, as far as I can learn, been indicated.

Again, a confusion highly detrimental to the philosophical status and scientific progress of Ethnology, has resulted from the unjustifiable assumption, that resemblances in cranial form and characteristics necessarily betoken, in a greater or less degree, congenital affiliations. It by no means follows, as some appear to have thought, that because widely and persistently discrepant forms are unrelated *ab origine*, — closely coincident forms are as exact indications of such primary relation. To say that the Polar man, — the Eskimo of America and the Samoyede of Asia, — should in all natural classification be associated, or at least placed in juxtaposition with certain dark races of the tropics, in consequence of well-marked cranial similiarities, is a fact as singular as it is true; but to conclude from these similarities alone, that they are affiliated and have one common

[51] Lectures, &c., p. 225.

[52] Crania Britannica, p. 4. — Die Lehre von den Ur- und Racen-Formen der Schädel und Becken des Menschen, S. 5, 1830.

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origin, is at once illogical and unwarrantable. Resemblances in physical conformation and in intellectual capacity, manners, and customs, growing out of, and dependent in great measure upon such conformation, are indications rather of a similarity of position in the great natural scale of the human family, than of identity of origin. To establish identity, proof of another kind is required. That positive identity of cranial form, structure and gentilitial characters is the best evidence of identity of origin, or, at all events, of very close relationship, there can be no doubt. But *identity* must not be inferred from striking *similarity*. The confusion of terms has led to much error. Similarity in the features above alluded to, indicates merely an allied natural position, and nothing more. This distinction is as important in cranioscopy as that made by the comparative anatomist between the analogies and homologies of the skeleton.

Somebody has said that "when history is silent, language is evidence." The cranioscopist knows that oftentimes, when both history and language are silent, cranial forms become evidence. For the cranial similarities and differences above mentioned may be estimated with mathematical accuracy and precision, by weight, measurement, &c. Hence, while the language of an ante-historic people may be lost, the discovery of their skulls will afford us the means of determining their rank or position in the human scale, &c. From considerations of this nature, we are led to recognise the existence of a craniological school in Ethnology, a craniological principle of classification and research, and a craniological test of affinity or diversity. According to PRICHARD, Ethnology is, equally with Geology, a branch of Palæontology. "Geology," says he, "is the archæology of the globe,—Ethnology that of its human inhabitants."[53] LATHAM, commenting upon this sentence, very appropriately observes, that "when Ethnology loses its palæontological character, it loses half its scientific elements."[54] From this we learn the importance of osteology, especially the cranial department, since it constitutes one of the surest, and often the only guide in identifying ancient populations. Dr. LATHAM, the well-known philologist, lays great stress upon the ethnological value of language, which he speaks of as "yielding in definitude to no characteristic whatever." . . . . "Whatever may be said against certain over-statements as to constancy, it is an undoubted fact, that identity of language is *primâ facie* evidence of identity of origin."[55] Among the apophthegms appended to his work on the Varieties of Man, the same opinion occurs.—"In the way of physical

[53] Anniversary Address, delivered before the Ethnological Society of London, in 1847.
[54] Man and his Migrations, Amer. Edit. New York, 1852, p. 41.
[55] Ibid, p. 35.

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characteristics, common conditions develop common points of conformation. Hence, as elements of classification, physical characters are of less value than the philological moral ones."[56] There are reasons for dissenting from the opinion of this eminent philologist. When we contemplate the mutability and destructibility of languages, as abundantly exemplified in the obliteration of the Etruscan dialect by the Roman-Latin; the Celtiberian and Turdetan by the Latin and Spanish; the Syriac by Arabic; Celtic by the Latin and French; the Celtic of Britain by the Saxon and English; the Pelhevi and Zend by the Persian, and the Mauritanian by Arabic;[57] when we reflect how the Epirotes and Siculi changed their language, without conquest or colonization, into Greek, and how the ancient Pelasgi, all the primitive inhabitants of the Peloponnessus, and many of those of Arcadia and Attica, abandoned their own language and adopted that of the Hellenes;[58] when we behold the Negroes of St. Domingo speaking the French tongue, the Bashkirs, of Finnish origin, speaking Turkish;[59] and when, finally, as one instance of another and significant class of facts, we call to mind how the Carelians, in consequence of certain linguistic analogies, have been classed with the Finns, though descended from an entirely different race, who, at an early period, overran the region about Lake Ladoga,[60] — we are "disposed to believe with Humboldt" — I am using the words of Morton — "that we shall never be able to trace the affiliation of nations by a mere comparison of languages; for this, after all, is but one of many clews by which that great problem is to be solved."[61] Surely anatomy and physiology — those handmaids of the zoologist —are more powerful, and, in the very nature of things, better adapted to settle the question of the unity of man, to determine whether the human family is composed of several species, or of but one species comprising many varieties. Surely the human skeleton is more enduring and less mutable than the oldest language. Instances are not wanting, as we have seen above, of a nation forgetting its own language in its admiration for the more perfect speech of another people. But, as far as I am aware, not a solitary instance can be adduced of a nation, *genealogically pure*, entirely changing its physical characters for those of another. Let us conclude then, with Bodichon, that Physiology is superior to Philology as an instrument of ethnological research.—"To throw light upon the question of origins, it is necessary to appeal to a science more precise, and founded on

[56] Varieties of Man, p. 562.
[57] Hamilton Smith, op. cit., p. 178.
[58] Niebuhr, Hist. of Rome, 1, 37.
[59] Helwerzen, Annuaire des Mines de Russie, 1840, p. 84.
[60] Haartman, Transactions of the Royal Society of Stockholm, for 1847.
[61] Crania Americana, p. 18.

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the *nature of the object* which we examine. This science is the Physiology of races, or, in other words, a knowledge of their moral and physical characters. Through Physiology has been established the existence of antediluvian beings, their genera, their species, and their varieties; by it also we shall discover the origin of races of men, even the most mysterious. Through it we shall one day be able to classify populations as surely as we now class animals and plants: history, philology, annals, inscriptions, the monuments of arts and of religion, will be auxiliaries in these researches. Herein we consider its indications as motives of certitude, and its decisions as a criterion."[62]

Anthropology has been involved in not a little confusion by certain injudicious departures from the well-tried zoological methods employed by naturalists generally. But little difficulty seems to be experienced in the practical determination of species in the animal and vegetable worlds; but as soon as the rules and specific distinctions here employed have been applied to man, exceptions have been taken at once, and attempts made to invalidate their applicability, by excluding man entirely from the pale of the animal kingdom, as if, in the latter, development, formation and deformation were controlled by laws different from these processes in the former. Barbançois regards man as "un type tout à part dans la création, comme le représentant d'un règne particulier — le *règne moral.*" So the celebrated Marcel de Serres says, "l'homme ne constitue dans la nature ni une espèce, ni un genre, ni un ordre, il est à lui seul un règne, le *règne humain.*"[63] Aristotle, the father of philosophical natural history, Ray, Brisson, Pennant, Vic d'Azyr, Daubenton, Tiedemann, and others equally distinguished, have all unwisely attempted this disruption of nature. The futility of the arguments employed may be learned by reference to Swainson's Nat. Hist. and Classification of Quadrupeds.[64] But those who recognize the animality of man, and place him accordingly at the head of the Mammalia, are not exactly agreed as to the extent of isolation which should be claimed for him in this position, or, in other words, difference of opinion exists as to the extent and scientific meaning of the gap which separates him from the highest brute. Linnæus grouped Man, the Simiæ and Bats under the general division, Primates.[65] Illiger,[66] Cuvier,[67] Lawrence,[68] and others, assign him a distinct order.

[62] Études sur l'Algérie, Alger, p. 18.

[63] Voyage au Pole Sud. Anthropologie, de Dumoutier, par Blanchard. Paris, 1854, p. 18.

[64] Pp 8–10

[65] He observes, "Nullum characterem hactenus eruere potui, unde Homo a Simiâ internoscatur." — Fauna Suecica. Preface, p. ii.

[66] Prodomus Systematis Mammalium. [67] Règne Animal. [68] Op. cit.

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VAN AMRINGE considers Man the sole representative of a distinct and separate mammalian class, to which he applies the term *Psychical* or *Spiritual*, in contradistinction to the *Instinctive* mammals.[69] As might be naturally expected from the above remarks, still less agreement is manifested in relation to the classification of the different races or tribes of men. This want of accordance arises from the difficulty of determining what characters are fundamental and typical, and what are not.

Now, it should never be forgotten that an ethnical, like any other natural type, is an ideal creation, not a positive entity. It is analogous to the mean or average of a series of numbers. These numbers may all be but slightly different from each other, and yet none of them be exactly identical with the mean. In examining a number of objects presenting many peculiarities, the mind instinctively figures to itself an object possessing all these peculiarities. This object, this ideal image, gradually assumes the dignity and importance of a standard to which all other similar objects are referred, as greater or less approximations to the type, the approximation being dependent upon the degree of predominance of the peculiarities in question. If, on comparing any body with this imaginary standard — "this form which exists everywhere, and is nowhere to be found" — the points of resemblance are in number equal to or even less than the points of difference, then it is said to diverge from the type. It is a divergent form. Now, a type as it is manifested in nature is, for all practical purposes, fixed and immutable; our mental conception of it is necessarily a constantly varying one. The more numerous the individuals of the group, and the more extensive our examination, the more perfect will be our generalization, upon which, in fact, the type is based. The examination of but a few individuals of a group is apt to lead to an erroneous idea of the type.

But a singular fact here claims our attention. Along with this increasing perfection of the typical idea comes a diminished confidence in its importance; for the same observations which serve to establish the type, also lead us to perceive that the distance which separates one type from another is a plenum, and is not marked by gaps, but by transitionary forms — not transitionary in the sense of variations from certain persistent forms brought about by climatic conditions, &c., but transitionary forms *ab origine* and self-existent, presenting themselves unchanged as they were characterized by the Great First Cause, and inherently capable of those known and limited variations produced by intermarriage, &c. The elements

[69] An Investigation of the Theories of the Nat. History of Man, &c. New York, 1848, p. 72.

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which establish a type serve to connect it insensibly with those of another. Hence the great difficulty experienced in attempting to classify the members of the Human Family. The discrepancy of opinion has extended not only to the number of divisions to be made, but also to the particular races which should be assigned to each division. Blumenbach long ago expressed this difficulty. We have only to examine the list of writers who have attempted the classification of Human Races, and observe how they differ in the number of their primary departments, to be convinced of the prematureness of the whole attempt, and the scanty scientific data upon which such very artificial divisions have been erected. It appears to me that much of the difficulty arises from the scanty information which we possess concerning the number of primæval cranial types, the number of naturally divergent forms of each of these, and the degree of divergency permitted, and lastly, the tests by which to discriminate between forms naturally aberrant, and those hybrid results of blood-crossing. The study of divergent forms is of great importance, since in their varied but limited deviations from the type — like all exceptions to general rules — they indicate the essentials of the type while demonstrating a serial, archetypal unity of the human family in keeping with the entire animal world. To speak, therefore, of "developing the limits of a variety," is simply to demonstrate the connections, relations, and persistence of those varieties. The diversities of cranial form presented by any nation or tribe should therefore be regarded as the radii, so to speak, by which that tribe is connected with the rest of the humanitarian series, whether living or extinct, or, in the course of future geological changes, yet to appear.

It is well known that naturalists rely mainly upon form, color, proportions — the externals, in short — to establish species. The illustrious CUVIER, taking higher ground, attempted to develope the laws of classification by a resort to the comparative method in anatomy. With the osteological branch of this method, as an instrument of research, he undertook his grand scheme of the restoration of the fossil world and the determination of its relation to the living zoology. His reliance upon internal structure in preference to external characters, was as much a matter of necessity as of choice, since of the palæontological objects of his study, the bony skeleton and the teeth alone remained from which to recompose the forms of the past animal world, and determine their species. In the course of his investigations a remarkable fact became evident — that in many genera of animals, species externally well characterized, differed scarcely at all in their bony frame-work. Regarding these

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slight differences — by such a practised eye certainly not overlooked — as trivial, and losing sight of the singular importance they derive from their historical permanency, he was led in the end to deny to comparative osteology the value he first assigned it. Thus, notwithstanding his great scientific labors, he left it undecided whether the fossil horse was specifically identical with the living or not.[70] On this point naturalists still differ in opinion. Whilst by the aid of comparative anatomy — for the cultivation of which he enjoyed unusual advantages — he was enabled to startle the world with the brilliant announcement that there had been several zoological creations, of which man was one, we find him at length hesitatingly denying to anatomical characters the power of determining species. But the question arises — a question already perceived and disposed of in the affirmative by some ethnologists — whether anatomical characters have not a higher signification than the mere determination of species; whether, in fact, they are not generic. It would, indeed, appear, that while the external or peripheral form and appendages determine species, the internal organism establishes genera. But the genus must contain within itself and foreshadow the essential characters of the species; there must be an adaptation between the peripheral conformation and central organic structure. As a very slight error committed in the first step of a long and complicated mathematical calculation magnifies itself at every subsequent step of the process, until a result is obtained very different from the true one, so a comparatively minute peculiarity in the osseous structure of an animal may repeat itself through the muscles, fascia, and integumentary covering, expressing itself at last as a characteristic, which, though it might be difficult to point out exactly, is seen to be an individual or specific mark by which the animal may be discriminated from other individuals or from allied species. And as the result of the supposed problem must always be the same, so long as the incorporated error is not eliminated, so the external peculiarity of the animal must ever remain the same, while the internal structure mark varies not. This constant and historically immutable relation between structure and form is in consonance with the law of the "correlation of forms," first suggested, I believe, by Cuvier, and by him used in such a masterly manner in the elucidation of the laws of zoology.

"The importance to be attached to the zoological characters afforded by the slighter modifications of structure," writes MARTIN, "rises as we ascend in the scale of being. In the arrangement of

[70] Discours sur les Revolutions du Globe, p. 76.

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mammalia and birds, for example, minutiæ which, among the Invertebrata, would be deemed of little note, become of decided value, and are no longer to be neglected. Even the modifications, however slight, of a common type, now become stamped with a value, the ratio of which increases as we advance from the lower to the higher orders. Hence, with respect to mammalia, the highest class of Vertebrata, every structural phase claims attention; and, when we advance to the highest of the highest class, viz., Man, and the Quadrumana, the naturalist lays a greater stress on minute grades and modifications of form, than he does when among the cetacea or the marsupials; and hence, groups are separated upon characters thus derived, because they involve marked differences in the animal economy, and because it is felt that a modification, in itself of no great extent, leads to most important results. Carrying out the principle of an increase in the value of differential characters as we advance in the scale of being, it may be affirmed that, upon legitimate zoological grounds, the organic conformation of man, modelled, possibly, upon the same type as that of the chimpanzee or orang, but modified, with a view to fit him for the habits, manners, and, indeed, a totality of active existence, indicative of a destiny and purposes participated in neither by the chimpanzee nor any other animal, removes Man from the Quadrumana, not merely in a generic point of view, but from the pale of the Primates, to an exclusive situation. The zoological value of characters derived from structural modifications is commensurate with the results which they involve; let it then be shown that man, though a cheiropod (hand-footed), possesses structural modifications leading to most important results, and our views are at once justified."[71]

It will thus be seen that anatomical differences are valuable to the zoologist more from their *permanency*, than from their *magnitude*. "A species," says Prof. Leidy, "is a mere convenient word with which naturalists empirically designate groups of organized beings possessing characters of comparative constancy, as far as historic experience has guided them in giving due weight to such constancy."[72] An organic form historically constant is, therefore, a simple and exact expression of a species. In this constancy of a form lies its typical importance as a standard or point of departure

[71] A General Introduction to the Natural History of Mammiferous Animals, with a particular view of the Physical History of Man, &c. By W. C. S. Martin, F. L. S. London, 1841, p. 206.

[72] Proceedings of the Academy of Natural Sciences, Vol. VII. p. 201. — See also a letter from Prof. L. to Dr. Nott, of Mobile, published in the Appendix to Hotz's translation of Gobineau's work on the Inequality of Races, &c., p. 480.

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in all our attempts at classification and developing the laws of formation. The mere shape, volume, or configuration, is secondary.

The polar, brown, and grizzly bears differ but little in their osteology; the same is true of the horse, ass, and zebra, and of the lion, tiger, and panther. By most naturalists the horse and ass are referred to distinct species,—by Prof. Owen to distinct genera. The latter gentleman specifically separates a fossil from the recent horse, in consequence of a slight curvature in the teeth of the former. According to Flourens, the dog and fox belong to different genera; the dog and wolf to distinct species, as also the lion and tiger.[73] Now the crania of the horse and ass differ in their nasal bones only. The pupil of the dog is disc-shaped; that of the fox, elongated. Says Knox: "The nasal bones of the ass differ constantly from those of the horse; so do those of the lion and tiger. The distinction extends to the whole physiognomical character of the crania in these four species, and in all others. But so it is in man, chiefly in these very bones, and in the physiognomy of the skeleton of the face. For it is not in the comparative length or size merely of the nasal or maxillary bones that the cranium of the Bosjieman and the Australian differ from the other races of men, although these differences are no doubt as constant and real as are the anatomical differences of any two species; they differ in every respect, and especially do they display physiognomical distinction, which the experienced eye detects at once. When fossil man shall be discovered, he, also, will be proved to have belonged to a species distinct from any that now live. By the generic law I am about to establish, his affiliation with the existing races may and will be proved, first by the fact of his extinction, but still more by those slight anatomical differences, which, though seemingly unimportant, are not really so. His relation to the present or living world will be the same as that of the extinct solid-ungular and carnivora to the living—*generically* identical, specifically distinct." [74]

Between the crania of the various races of men, the same slight, but constant, and therefore important, differences can be pointed out, in some instances even more marked and better characterized than those which are considered by naturalists of high distinction, as sufficient to form a basis upon which to establish species. It is true that no human race possesses a bone the more or less in the cranium, than the others; but it is equally true that human crania differ, in some instances quite remarkably, in the size and proportions of their con-

[73] Op. cit., p. 111.

[74] Introduction to Inquiries into the Philosophy of Zoology, by Robt. Knox, M.D., &c., in London Lancet, Oct., 1855.

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stituent bones, and these differences are not accidental and fluctuating, but persistent. Thus, the massive, broad, and outward-shelving malar bones of the Polar man are unlike those of any other race. So, the superior maxillæ of the Coast African is so unlike that of any other people, as to have become a standard of comparison for inferiority—a standard expressed by the word prognathous. Differences in the nasal bones, in the size of the frontal sinuses, in the prominence of the occiput, in the angle at which the parietal bones join each other, in the form and arrangement of the teeth, in the relation of head to face, in the relative situations of the great occipital foramen and the bony meatus, in the form of the skull, and the configuration of its base; and, as the result of all these, in the physiognomy of the facial bones, exist, as I shall presently endeavor to show, and are perpetuated from one generation to another as constant and unaltered features.

Cranial differentiæ, however slight, derive additional importance from their relation to the physiognomical character of the skull as a whole, and daily observation shows this character to be more important than is generally considered. The labors of Porta, Camper, Lebrun, Lavater, Bichat, Moreau de la Sarthe, and others, have given us the scientific elements of a physiognomy or physiology of the face, as those of Blumenbach and Morton have established a physiology of the cranium. Between the muscular and integumentary investiture of the face and head on the one hand, and the bony structure of these parts on the other, there is a decided adaptation. Whether the soft parts determine the form of the osseous frame-work, or the latter that of the former, does not so much concern us, at present, as the fact of adaptation. That this adaptation exists, there can scarcely be a doubt. "Tout dans la nature," beautifully and truthfully writes De la Sarthe, "est rapport et harmonie; chaque apparence externe est le signe d'une propriété: chaque point de la superficie d'un corps annonce l'état de sa profondeur et de sa structure."[75] In virtue of this harmony, we find the physiognomy of the skull expressing the true value of its osteologic peculiarities, even when these are so slight as to appear in themselves trivial and insignificant. Sœmmering, not perceiving the import of this relation, tells us that he could find no well-marked differences between the German, Swiss, French, Swedish and Russian skulls in his collection, leaving it to be inferred that none such existed.[76] At a later period, and from the same

[75] Neuvième Étude sur Lavater.

[76] Lawrence informs us that his friend, Mr. Geo. Lewis, in a tour through France and Germany, observed that the lower and anterior part of the cranium is larger in the French, the upper and anterior in the Germans; and that the upper and posterior region is larger

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cause, Cuvier, while conducting his palæontological researches, more than once fell into an analogous error.

From the foregoing remarks, it will be seen that it is a matter of much importance to be able to discriminate between typical or race-forms of crania, and those modifications of shape produced, to a certain extent, by age, sex, development, intermixture of races, artificial deformations, &c. Unless these distinctions be observed, and due allowance made for them, it will be utterly impossible to determine the number and character of the primitive types — an attempt already almost hopelessly beyond our power, in consequence of the ceaseless migrations and affiliations which have been going on amongst the races of men since the remotest antiquity. The modifications of cranial form, from these various causes, are so many associated elements, which must be individually isolated before we can determine the true value of each. In proportion as this isolation is complete, so will our results approximate the truth.

It is very well known that the skulls of the lower animals undergo certain changes in conformation as they advance in age. In a limited degree, this appears to be true of man also; though the extent of these changes, and the period at which they are most noticeable — whether during intra-uterine life, or subsequent to birth — are points not yet definitively settled. However, from the observations of Sœmmering, Camper, Blumenbach, Loder and Ludwig, we learn that in very young children, even in infants at the moment of birth, the race-lineaments are generally but positively expressed. Blumenbach, in his *Decades*, figures the head of a Jewess, aged five years, a Burat child, one and a half years, and a newly-born negro; in each of these the ethnic characters of the race to which it belongs are distinctly seen. The Mortonian collection furnishes a number of examples confirmatory of this interesting and remarkable fact.

Occasionally the tardy development of certain parts may give rise to apparent modifications, as indicated in the following passage from Dr. Gosse's highly interesting essay upon the artificial deformations of the skull. "Il n'est pas même rare, en Europe, de voir le front paraître plus saillant chez un grand nombre d'enfants, en raison du faible développement de la face. Toutefois, jusqu'à l'âge de dix à douze ans, il existe en général une prédominance de la region occipitale qui paraît se développer d'autant plus que l'intelligence est plus exercée. Ce n'est souvent que vers cette époque de la vie que les os

in the former than in the latter. (Op. cit., p. 239.)—Count Gobineau, in his work already alluded to, speaks of a certain enlargement on each side of the lower lip, which is found among the English and Germans.

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propres du nez tendent à se relever davantage suivant les traits des individus ou des races."[77]

Some physiologists have supposed that permanent modifications of cranial form are produced during severe and protracted *accouchements*. Gall, long ago, refuted this notion, and every *accoucheur* has, in fact, constant opportunities of satisfying himself of the untenability of this doctrine. It has more than once happened to me, as it necessarily does to every physician engaged in the practice of obstetrics, to witness a head, long compressed in a narrow pelvis, born with the nose greatly depressed, the forehead flattened, the parietal bones overriding each other, and the whole skull completely wire-drawn, so as to resemble some of the permanent deformations pictured in the books; and yet, in a few days, the inherent elasticity of the bony case and its contained parts has sufficed to restore it to its natural form. But the great objection to this opinion lies in the fact of a conformity between the cranial and pelvic types of a particular race. Dr. Vrolick, following up the suggestions of Camper and some other observers, relative to certain peculiarities of the negro pelvis, has demonstrated the existence of a race-form for the pelvis as for the cranium. He has shown that the form of the head is adapted to the pelvic passage which it is compelled to traverse in the parturient act, and that the pelvis, like the skull, possesses its race-characters and sexual distinctions, sufficiently well marked, even at the infantile epoch. As in the zoological series, we find the cranium of the monkey differing from that of the animals below it, and approximating the human type, so we find the pelvis pursuing the same gradation, from the Orang to the Bosjieman, from the Bosjieman to the Ethiopian, from the Ethiopian to the Malay, and so on to the high caste White races, where it attains its perfection, and is the farthest removed in form from that of the other mammiferæ. I am aware that Weber has attempted to deny the value of these observations, by showing that, although certain pelvic forms occur more frequently in some races than in others, yet exceptions were found in the fact of the European conformation being occasionally encountered among other and very different races. "This is not proving much," as De Gobineau acutely observes, "inasmuch as M. Weber, in speaking of these exceptions, appears never to have entertained the idea, that their peculiar conformation could only be the result of a mixture of blood."[78]

[77] Essai sur les Déformations Artificielles du Crâne, Par L. A. Gosse, de Genève, &c. Paris, 1855. Published originally as a contribution to the "*Annales d'Hygiène Publique et de Médecine Légale*," 2e séric, 1855, tomes III. et IV.

[78] Op. cit., t. 1, p. 193.

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In the study of cranial forms, sexual differences should not be overlooked. "The female skull," says DAVIS, "except in races equally distinguished by forms strikingly impressed, does not exhibit the gentilitial characters eminently."[79] It is well known to the obstetrician, that the male skull, at birth, is, on the average, larger than the female.

A complete history of the development of the human brain and cranium, in the different races, would constitute one of the most valuable contributions to anthropology. Such a history alone can determine the true meaning of the various appearances which these parts assume in their transition from the ovum to the fully-developed typical character, and demonstrate their as yet mysterious relations to the innumerable forms of life which are scattered over the surface of the globe. To such a history must we look, also, for a solution of the question, as to whether the soft and pulpy brain models around itself its hard and resisting bony case, or, conversely, whether this latter gives shape to the former.

During the first six weeks of embryonic life, the brain, clothed in its different envelopes, exists without any bony investment, being surrounded externally with an extremely thin, soft, and pliable cartilaginous membrane, in which ossification subsequently takes place. About the eighth week, as shown by the investigations of Gall, the ossific points appear in this membrane, sending out diverging radii in every direction. As this delicate cartilaginous layer is moulded nicely over the brain, the minute specks of calcareous matter, as they are deposited, must to some extent acquire the same form as the brain. Whether this be true or not, there is a manifest adaptation between the brain and cranium, the result of a harmony in growth, inseparably connected with the action of one developing principle in the human economy. From this fact, alone, we might fairly infer that differences in the volume and configuration of a number of crania are general indications of differences in the volume and configuration of their contained brains. One single fact, among many others, proves this admirable harmony. It is this: The process of ossification is at first most rapid in the bones composing the vault; but presently ceasing here, it advances so rapidly in those of the base and inferior parts generally, that at birth the base is solid and incompressible, thus protecting from pressure the nervous centre of respiration, which is at this time firmer and better developed than the softer and less voluminous cerebral lobes.

According to the embryologic investigations of M. DE SERRES, of all brains, that of the high-caste European is the most complex in

[79] Op. cit., p. 5.

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its organization. In attaining this high development, it passes successively through the forms which belong permanently to fishes, reptiles, birds, mammals, Negroes, Malays, Americans, and Mongolians.

The bony structure undergoes similar alterations. "One of the earliest points where ossification commences is the lower jaw. This bone is therefore sooner completed than any other of the head, and acquires a predominance which it never loses in the Negro. During the soft, pliant state of the bones of the skull, the oblong form which they naturally assume approaches nearly the permanent shape of the American. At birth, the flattened face and broad, smooth forehead of the infant; the position of the eyes, rather towards the sides of the head, and the widened space between, represent the Mongolian form, which, in the Caucasian, is not obliterated but by degrees, as the child advances to maturity." Hamilton Smith, commenting upon these interesting researches, says: "Should the conditions of cerebral progress be more complete at birth in the Caucausian type, and be successively lower in the Mongolic and intermediate Malay and American, with the woolly-haired least developed of all, it would follow, according to the apparently general law of progression in animated nature, that both — or at least the last-mentioned — would be in the conditions which show a more ancient date of existence than the other, notwithstanding that both this and the Mongolic are so constituted that the spark of mental development can be received by them through contact with the higher Caucasian innervation; thus appearing, in classified zoology, to constitute perhaps three species, originating at different epochs, or simultaneously in separate regions; while, by the faculty of fusion which the last, or Caucasian, imparted to them, progression up to intellectual equality would manifest essential unity, and render all alike responsible beings, according to the degree of their existing capabilities — for this must be the ultimate condition for which Man is created."[80]

From his own researches, Prof. Agassiz concludes that it is impossible, in the fœtal state, to detect the anatomical marks which are characteristic of species. These specific marks he assures us become manifest as the animal, in the course of its development, approaches the adult state. In like manner, the evolution of the physical and mental peculiarities of the different races of men appears to commence at the moment of birth. Dr. Knox, in his recent communications in the "London Lancet," already referred to, maintains almost the same opinion. He considers the embryo of any species of any natural family as the most perfect of forms, embracing within itself, during its phases of development, all the forms or species which that natural family can assume or has assumed in past time. "In the embryo and the young individual of any species of the natural family of the Salmonidæ, for example," says he, "you will find the characteristics of the adult of all the species. The same, I believe, holds in man; so that, were all the existing species of any family to be accidentally destroyed, saving one, in the embryos and young of that one will be found the elements of all the species ready to reappear to repeople the waters and the earth, the forms they are to assume being dependent on, therefore determined by, the existing order of things. With another order will arise a new series of species, also foreseen and provided for in the existing world."

[80] Nat. Hist. of the Human Species, pp. 176–7. See also Serres' Anatomie Comparée.

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If we carefully consider the development of the cranium, it will be seen that this development goes on between, and is modified by two systems of organs — externally the muscular, internally the nervous. The brain exerts a double influence, mechanically or passively by its weight, and actively by its growth. That the brain completely fills its bony case, is sufficiently well known from the fact of the impressions left upon the inner aspect of the cranium by the cerebral convolutions and vessels. Very slight allowance need be made for the thickness of the meninges. That the progressive development of the brain is really capable of exerting some force upon the cranial bones surrounding it, is shown in the records of cases of hypertrophy of that organ, where, upon post-mortem examination, the calvaria being removed, the spongy mass has protruded from the opening and could not be replaced. That the bones are capable of yielding to a distending force acting from within outwards, is shown in the cases of chronic hydrocephalus, where the ventricles are found full of water, the brain-tissue flattened out, and the bones greatly distorted. Such a force becomes perceptible in proportion to the degree of softness and pliancy of the bones. A check to its action will be found in the sutures and in the amount of resistance offered by the dura-mater. Now it must be obvious that as long as the sutures remain open, and the developmental activity of the brain continues, the head must enlarge. If all the sutures remain open, this development will be regular and in exact proportion to the activity of growth manifested by the different parts of the encephalon. When a suture closes, further development in that direction will in great measure terminate. Of this proposition Dr. MORTON gives us the following example:

"I have in my possession," says he, "the skull of a mulatto boy, who died at the age of eighteen years. In this instance, the sagittal suture is entirely wanting; in consequence, the lateral expansion of the cranium has ceased in infancy, or at whatever period the suture became consolidated. Hence, also, the diameter between the parietal protuberances is less than 4.5 inches, instead of 5, which last is the Negro average. The squamous sutures, however, are fully open, whence the skull has continued to expand in the upward direction, until it has reached the average vertical diameter of the Negro, or 5.5 inches. The coronal suture is also wanting, excepting some traces at its lateral termini; and the result of this last deficiency is seen in the very inadequate development of the forehead, which is low and narrow, but elongated below, through the agency of the various cranio-facial sutures. The lambdoidal suture is perfect, thus permitting posterior elongation; and the growth in this direction, together with the full vertical diameter, has enabled the brain to attain the bulk of — cubic inches, or about — less than the Negro average. I believe that the absence or partial development of the sutures may be a cause of idiocy by checking the growth of the brain, and thereby impairing or destroying its functions."[81]

[81] See a paper on the Size of the Brain in the Various Races and Families of Man; with Ethnological Remarks; by Samuel George Morton, M. D.: published in "Types of Mankind," by Nott and Gliddon, Philadelphia, 1854, p. 303, note. See also Proceedings of Phila. Acad. Nat. Sci. for August, 1841.

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From the Mortonian collection, other illustrations of this fact might be drawn; but neither space nor time permits their introduction here.

In the study of the sutures, considerations of a highly philosophical character are involved. Their history enables us to perceive why the cranium was not formed of one piece, and why there should be two frontal and two parietal bones, and only one occipital. Such an arrangement obviously allows the fullest development of the anterior and middle lobes of the cerebrum,—the organs, according to CARUS, of intelligence, reflection, and judgment.[82] That the sutures are tutamina cerebri, that in the fœtus they permit the cranial bones to overlap during parturition, and thus, by diminishing the size of the head in certain of its diameters, and producing anæsthesia, facilitate labor, curtailing its difficulties and diminishing its dangers to both mother and child, there can be no doubt. Such provisions are of high interest, as exhibiting the harmony of nature. But when we call to mind that the skull is a vertebra in its highest known state of development; that the enclosed brain, as the organ of intellection, is the distinguishing mark of man; that the development of the cranium goes on *pari passu* with that of the encephalon; that the various degrees of human intelligence are definitely related to certain permanent skull-forms; and that the cranial sutures, in conjunction with the ossific centres, are the guiding agents in the assumption of these forms—it will be evident that a higher and far more comprehensive significance is attached to these bony interspaces. Again, no extended investigation has been instituted, as far as I am aware, to determine the period at which the different cranial sutures are closed in the various races of men. The importance of such an inquiry becomes apparent, when we ask ourselves the following questions:—1. Does the cranium attain its fullest development in all the races at the same, or at different periods of life? and 2. To what extent are race-forms of the cranium dependent upon the growth and modifications of the sutures?

"The most obvious use of the sutures," according to Dr. Morton, "is to subserve the process of growth, which they do by osseous depositions at their margins. Hence, one of these sutures is equivalent to the interrupted structure that exists between the shaft and epiphysis of a long bone in the growing state. The shaft grows in length chiefly by accretions at its extremities; and the epiphysis, like the cranial suture, disappears when the perfect development is accomplished. Hence, we may infer that the skull ceases to expand whenever the sutures become consolidated with the proximate bones. In other words, the growth of the brain, whether in viviparous or in oviparous animals, is consentaneous with that of the skull, and neither can be developed without the presence of free sutures."[83]

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[82] "Das besondere Organ des erkennenden, vergleichenden und urtheilenden Geisteslebens." — *Symbolik der menschlichen Gestalt*, von Dr. C. G. Carus, Leipzig, 1853.

[83] See article on Size of the Brain, &c., quoted above, p. 303.

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From investigations of this nature, and from other considerations, Dr. M. concluded that the growth of the brain was arrested at the adult age, that the consolidation of the sutures was an indication of the full development of both cranium and brain, and that any increase or decrease in the size or weight of the brain after the adult period would not be likely to affect the internal capacity of the cranium, which, therefore, indicates the maximum size of the encephalon at the time of its greatest development. COMBE, however, affirms that when the brain contracts in old age, the tabula vitrea of the cranium also contracts, so as to keep itself applied to its contents, the outer or fibrous table undergoing no change.[84] It is, to some extent, true that in the very aged, even when the skull-bones become consolidated into one piece, some changes may result from an undue activity of the absorbents, or some defect in the nutritive operations. Under such circumstances, the cranial bones may be thinned and altered slightly in form. DAVIS gives an example of this change, in the skull of an aged Chinese in his collection, in which the central area of the parietal bones is thinned and depressed over an extent equal to four square inches to about one-third of an inch deep in the central part.[85] Such changes, however, are too limited in their extent to demand more than a passing notice.

The pressure of the brain, exerted through its weight, is felt mainly upon the base and inferior lateral parts.

Prof. ENGEL, in a valuable monograph upon skull-forms,[86] particularly calls attention to the action of the muscles in determining these forms. He considers the influence of the occipito-frontalis as almost inappreciable, — so slight, indeed, that it may be neglected in our inquiries. The action of the temporal and pterygoid muscles and of the group attached to the occiput, though more evident, is still not worthy of much consideration. To the action of the musculus sterno-cleido-mastoideus, he assigns a greater value.

"This muscle," says he, "tends to produce a downward displacement at the mastoid portion of the temporal bone, which will be the more considerable, as the lower point of its attachment — the sternum and clavicle — is able to offer much greater resistance than the upper. In addition to this, the unusual length of the muscle produces, by its contraction, more effect, and, hence, favors a greater displacement of the bones to which it is attached. The bone upon which it exerts its influence is also very loose in early life, and even during the first year of our existence, when extensive motions of the muscle already take place, it is not as firmly fixed as the other bones; hence, it becomes probable that the influence of this muscle upon the position of the bones of the skull will be a demonstrable one.

"It may, however, be admitted *à priori*, that in spite of all these favorable circumstances,

[84] System of Phrenology, p. 83.

[85] Cr. Brit., p. 6. See also Gall, "Sur les Fonctions du Cerveau," III, 53, 1825.

[86] Op. cit.

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the displacement will not exceed a magnitude of one, or, at most, three millimetres. With this alone, we will, it is true, not yet explain that variety in the form of the skull which not only distinguishes one man from another, but has also been characterized as the type of progeny and race. Notwithstanding its seeming insignificance, however, this muscular action is a very important agent, and plays the principal part in the formation of the skull, although other circumstances of an auxiliary or restrictive nature must not be neglected — circumstances which may increase, diminish, or modify this displacement.

"The effect of this muscular action is considerably increased by superadded conditions. The head rests upon the condyles of the occipital bone. Partly on account of muscular action, and partly from the pressure of the brain, the basal bones of the skull are exposed to a downward displacement: the condyloid portions of the occiput, alone, are not. This impossibility to change their position parallel with the displacement of the other basal bones, is equivalent to an upward pressure of the occipital condyles, and this must considerably increase the downward traction of the sterno-cleido-mastoideus.

"The occipital and temporal regions, then, are subjected to a downward traction, while the condyles are pressed upward: moreover, the brain produces, upon all the basal bones except the condyles, a downward pressure corresponding to its height; at the partes condyloidea, this downward pressure is obviated by the resistance of the vertebral column."

Notwithstanding the significance of the facts thus far adduced, it has been boldly and unhesitatingly maintained that civilization — by which is meant the aggregate intellectual and moral influences of society — exerts a positive influence over the form and size of the cranium, modifying not only its individual, but also its race-characters, to such an extent, indeed, as entirely to change the original type of structure. This doctrine finds its chief advocates among the writers of the phrenological school, though it is not wholly confined to them. Among its most recent supporters we find the Baron J. W. DE MULLER, who, in a quarto pamphlet of 74 pages,[87] devotes a section to the consideration of the "*Action de l'intelligence sur les formes de la tête:*"

"Nous espérons prouver," says he, "de même que les formes du crâne ont des rapports intimes avec le degré de civilisation auquel un peuple est parvenu, et que par conséquent elles non plus ne peuvent justifier une division en races des habitants de la terre, à moins de classer les hommes d'après leur plus ou moins d'intelligence, et de justifier ainsi, au nom de la suprématie de la raison, non-seulment tous les abus de l'esclavage, mais encore toutes les tyrannies individuelles."

The subject-matter embodied in the above quotation, though professedly obscure, is beginning to assume a more certain character in consequence of the facts brought to light during the controversies between the *Unitarians* and *Diversitarians* in Ethnology — facts which intimately affect the great question of permanency of cranial types. Confronted with the facts presently to be brought forward, it will be seen that the doctrine of the mobility of cranial forms under the

[87] Des Causes de la Coloration de la Peau et des différences dans les Formes du Crâne, au point de vue de l'unité du genre humain. Par le Baron J. W. de Muller. Stuttgart, 1853.

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influence of education, &c., is by no means a settled fact, as many of its advocates appear to think. "Speaking of the great races of mankind," very appropriately remarks DAVIS, "whether it be in the size of the brain, or whether in its quality, or whether it be, as the phrenologists maintain, in the development of its particular parts, each race is endowed with such special faculties of the mind, moral and intellectual, as to impart to it a distinct and definite position within which its powers and capabilities range. We know of no valid evidence that can be brought forward for thinking this definite position can be varied in the mass. We may therefore take this further ground for questioning the assumed pliancy of the form of skull."

The indefatigable traveller and "Directeur du Jardin Royal de Zoologie de Bruxelles," has condensed in a few pages, at once the best and most commonly used arguments to sustain the hypothesis which constitutes the starting-point of the above-mentioned article. It has appeared to me not inappropriate to devote a few words, in this hasty sketch, to the examination of the tenability of the two most important examples adduced by Baron M., whose *brochure* I subject to critical inquiry, simply because it is one of the most concise exponents of a generally-spread, but, as it appears to me, erroneous, and therefore injurious view. And I am the more especially urged to this, since the question of the permanency or non-permanency of human types occupies the highest philosophical position in the entire field of Ethnographic inquiry. Its relations are, indeed, fundamental; for, according as it is definitively settled in the affirmative or negative, will Ethnography — especially the cranioscopical branch — assume the dignity and certainty of a science, or be degraded to the vague position of an interesting but merely speculative inquiry. "If the size of the brain," says Mr. COMBE, in allusion to the labors of MORTON, as published in *Crania Americana*, "and the proportions of its different parts, be the index to natural national character, the present work, which represents with great fidelity the skulls of the American tribes, will be an authentic record in which the philosopher may read the native aptitudes, dispositions, and mental force of these families of mankind. If this doctrine be unfounded, these skulls are mere facts in Natural History, presenting no particular information as to the mental qualities of the people." If there be this permanency of cranial form in the great leading or typical stocks — if, in other words, Nature alters not, but ever truly and unchangeably represents that primitive Divine Idea, of which she is but the objective embodiment and indication — then the labors of Blumenbach, Morton, Retzius, Nilsson,

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Davis, and other cranioscopists, have not been toilfully wrought out in vain; if, however, this permanency is but a dream, if typical skull-forms vary in periods of time not greater than the historic, then all is confusion and uncertainty, and the labors of the craniologist hopeless for good, alike without objects and without results.

Now a moment's reflection will show that this question of permanency underlies and in great measure substitutes itself for the fiercely-vexed problem of the unity or diversity of human origin.

"S'il est démontré," says Gobineau, "que les races humaines sont, chacune, enfermées dans une sorte d'individualité d'où rien ne les peut faire sortir que le mélange, alors la doctrine des Unitaires se trouve bien pressée et ne peut se soustraire à reconnaître que, du moment où les types sont si complètement héréditaires, si constants, si *permanents*, en un mot, malgré les climats et le temps, l'humanité n'est pas moins complètement et inébranlablement partagée que si les distinctions spécifiques prenaient leur source dans une diversité primitive d'origine."[88]

After citing the Barâbra or Berberins of the Nile-valley, and the Jews, in proof of the proposition under consideration, our author proceeds to speak of the Turks in the following manner.

"Les Turcs d'Europe et de l'Asie mineure nous offrent une autre preuve que la forme caractéristique du crâne peut se modifier complètement dans le cours des siècles. Ce peuple nous présente le modèle d'un type elliptique pur et ne se distingue rien de la masse des nations européennes. Par contre, il diffère tant avec les Turcs de l'Asie centrale, que beaucoup d'écrivains le placent au nombre des nations caucasiques, tandis qu'ils rattachent les Turcs d'Asie à la race mongole. Or, l'histoire démontre d'une manière irréfutable que ces deux peuples appartiennent au groupe de l'Asie septentrionale, avec lequel les Turcs de l'Orient conservent les relations les plus intimes, non-seulement au point de vue géographique, mais par la concordance de tous les usages de la vie. La transformation du crâne a eu lieu non chez les Turcs de l'Asie centrale, mais chez ceux de l'Europe. Ceux-ci ont perdu peu à peu le type pyramidal de leurs pères et ils l'ont échangé contre la plus belle des formes elliptiques. Or, tout en étant les représentants par excellence de cette forme, ils sont aussi les consanguins les plus proches de ce peuple hideux aux yeux louches, qui mène paître ses chevaux dans les steppes de la Tartarie. . . . . Nous devons attribuer cette modification du crâne aux améliorations sociales, à la civilisation qui tend toujours à équilibrer toutes les anomalies des formes faciales, à niveler toutes les protubérances du crâne pyramidal ou prognatique et à les mener à la symétrie du type de l'ellipse. Les Turcs orientaux sont restés ce qu'étaient les anciens Turcs; placés sur le même degré inférieur de la civilisation, ils ont conservé le type des peuples nomades."

The mode of argument here employed appears to be this. In the first place it is taken for granted that the Turks are of Asiatic origin; secondly, in consequence of certain unimportant resemblances, they are assumed to be affiliated with the Laplanders and Ostiacs through what are erroneously supposed to be their Finnic or Tchudic branches; and lastly, as relations of the Lapps, (?) it is inferred that they must have originally presented all the Mongolic characters in an eminent degree, and been remarkable for low statures, ugly features, &c.

[88] Op. cit., t. 1, p. 212.

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These premises supposed to be established, a comparison is next instituted between the Turks of Europe and of Asia Minor, and a conclusion drawn adverse to permanency of cranial types.

It is of vital importance to cranioscopy, that these arguments should be carefully sifted, and examined in detail. It has been recently shown that at so remote a period as the days of Abraham, numerous Gothic tribes occupied those boundless steppes of High Asia, which lie outstretched between the Sea of Aral and Katai, and between Thibet and Siberia.[89] From the Altai Mountains of this region appear to have descended, at this distant epoch, the Orghuse progenitors of the Turks. Now it is a note-worthy fact, that the Oriental writers, though familiar with the European standards of beauty, have filled their writings, even at a very early period, with the highest eulogies upon the form and features of the tribes inhabiting Turkestan. The descriptions they give of these tribes by no means apply to the true Mongol appearance, to be met with on the desert of Schamo. Haneberg describes Scharouz, the daughter of the Khakan of the Turks, who lived in the early part of the sixth century, as the most beautiful woman of her time.[90] Alexander von Humboldt tells us that the monk Rubruquis, sent by St. Louis on an embassy to the Mongolian sovereign, spoke of the striking resemblance which the Eastern monarch bore to the deceased M. Jean de Beaumont, in complexion, features, &c. "This physiognomical observation," says Humboldt, "merits some attention, when we call to mind the fact, that the family of Tchinguiz were really of Turkish, not of Mogul origin." Further on, he remarks, "The absence of Mongolian features strikes us also in the portraits which we possess of the Baburides, the conquerors of India."[91]

"The Atrak Turks," writes Hamilton Smith, "more especially the Osmanlis, differ from the other Toorkees, by their lofty stature, European features, abundant beards, and fair complexions, derived from their original extraction being Caucasian, of Yuchi race, or from an early intermixture with it, and with the numerous captives they were for ages incorporating from Kashmere, Affghanistan, Persia, Syria, Natolia, Armenia, Greece, and eastern Europe. Both these conjectnres may be true, because the Caucasian stock, wherever we find it, contrives to rise into power, from whatever source it may be drawn, and therefore, may in part have been pure before the nation left eastern Asia, while the subordinate hordes remained more or less Hyperborean in character; as, in truth, the normal Toorkees about the lower Oxus still are. All have, however, a peculiar form of the posterior portion of the skull, which is less in depth than the European, and does not appear to be a result of the tight swathing of the turban. Osmanli Turks are a handsome race, and their children, in particnlar, are beautiful."[92]

[89] Consult, among other works, Humboldt's *Asie Centrale*, vol. II.; Ritter's *Erdkunde Asien*, vol. II.; and Lassen's *Zeitschrift für die Kunde des Morgenlandes*, vol. II.

[90] *Zeitschrift für die Kunde des Morgenlandes*, vol. I., p. 187.

[91] *Asie Centrale*,, vol. I., p. 248. See also Gobineau, *Sur l'Inégalité, &c.*, Chap. XI.

[92] Op. cit. p. 327.

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Now, the beautiful Osmanlis are the lineal descendants of the warlike Seldjuks, who, in the ninth century, suddenly made their appearance in Southern Asia, overthrew the empire of the Khalifs, and founded the states of Iran, Kerman, and Roum, or Iconium. History informs us that these Seldjuks were, by no means, careful about preserving the purity of their genealogy; for it is not difficult to adduce instances of their chiefs intermarrying with Arabian and Christian women. In short, when we consider that, as a body, they were constantly engaged in extensive predatory excursions, during which they enjoyed almost unlimited opportunities for capturing slaves and amalgamating with them; that in compliance with the invitation of Osman, the son of Ortogrhul, great numbers of the adventurous, the discontented, and the desperate, from all the surrounding nations, fled to his standard, and gradually swelled the ranks of the Osmanlis; that at a later period, the thinning of their numbers in war was avowedly provided for by the capture of slaves; that in the ranks of the Janissaries, a military order instituted in the early part of the fourteenth century by Orkhan, one-fifth of all the European captives were enrolled; that for two centuries and a half this body was entirely dependent for its renewal upon the Christian slaves captured in Poland, Germany, Italy, &c.; that in the course of four centuries, at least half a million of European males derived from the above-mentioned sources, and by piracy along the Mediterranean, had been incorporated into the Turkish population;—when we consider all these, and many other facts of a like nature, we are forced to conclude with the erudite Gobineau, that the history of so amalgamated a nation furnishes no arguments, either for or against the doctrine of permanency of type.

Further on, and confirmatory of the above remarks, the reader will find some allusion to the special character of the Turkish cranium, and the marks which distinguish it from the Mongolian, Finnic, and other forms of the skull.

The Magyars are also produced as an example of the mutability of cranial form.

"Bien qu'ils ne le cèdent à aucun peuple ni en beauté physique ni en développement intellectuel, ils descendent, d'après les indications de l'histoire et de la linguistique comparée, de la grande race qui occupe l'Asie septentrionale. Ils sont du même sang que les Samoïèdes indolents, les Ostiacs stupides et débiles, les Lapons indomptables. Il y a environ mille ans, les codescendants de ces peuplades méprisées, les Magyars modernes, furent chassés par une invasion de Turcs hors de la Grande-Hongrie, pays avoisinant l'Oural, qu'ils habitaient à cette époque. A leur tour ils expulsèrent les races slaves des plaines fertiles de la Hongrie actuelle. Par cette migration, les Magyars échangèrent un des plus rudes climats de l'ancien continent, une contrée sauvage dans laquelle l'Ostiac et le Samoïède ne peuvent s'adonner à la chasse que pendant quelques mois, contre un pays plus méridional, d'une luxuriante fertilité. Ils furent entraînés à se dépouiller peu à peu de leurs

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mœurs grossières et à se rapprocher de leurs voisins plus civilisés. Après un millier d'années, la forme pyramidale de leur crâne est devenue elliptique. L'hypothèse d'un croisement général de races n'est pas admissible quand il s'agit des Magyars si fiers, vivant dans l'isolement le plus sévère. La simple expatriation ne suffit pas non plus pour modifier la forme du crâne. Le Lapon, issu du même sang que le Magyar, a comme lui aussi changé de demeure; il vit maintenant en Europe; mais il y a conservé le type pyramidal de son crâne avec sa vie de nomade sauvage."

This asserted transformation of the Samoiede or Northern Asiatic type into the Hungarian, in the short space of eight hundred, or, at most, one thousand years, stands unparalleled in history. But we may ask, if the Magyar has thus changed the form of his head, why have not his habits and mode of life changed accordingly? Why, after a residence of nearly one thousand years in Hungary, does he still withhold his hand from agricultural pursuits, and, depending for his support upon his herds, leave to the aboriginal Slovack population the task of cultivating the soil? Why does he jealously preserve his own language, and, though professing the same religion, refuse to intermingle with his Slavonian neighbors? Can it be that the language, manners, and customs of a people are more durable than the hardest parts of their organism — the bony skeleton? If the reader will consult the able essay of GERANDO, upon the origin of the Hungarians,[93] he will find a simple explanation of these apparent difficulties. It is there shown by powerful philological arguments, and upon the authority of Greek and Arabian historians and Hungarian annalists, that the Magyars are a remnant of the warlike Huns, who in the fourth century spread such terror through Europe. Now, the Huns were by no means a pure Mongolic race, but, on the contrary, an exceedingly mixed people. In the veins of the so-called *White Huns*, who formed a portion of Attila's heterogeneous horde, Germanic blood flowed freely. "In the whole of the high region west of the Caspian," says HAMILTON SMITH, "to the Euxine and eastern coast of the Mediterranean as far as the Hellespont, it is difficult, if not impossible, to separate distinctly the Finnic from the pure Germanic and Celtic nations."[94] HUMBOLDT, in the *Asie Centrale*, alludes to the Khirghiz-Kasakes as a mixed race, and tells us that, in 569, Zémarch, the ambassador of Justinian II., received from the Turkish chief Dithouboul a present of a Khirghiz concubine who was partly white. DE GOBINEAU considers the Hungarians to be *White Huns* of Germanic origin, and attributes to a slight intermixture with the Mongolian stock their somewhat angular and bony facial conformation.[95]

[93] Essai Historique sur l'Origine des Hongrois. Par A. De Gérando. Paris, 1844. See also Hamilton Smith's Nat. Hist. of Human Species, pp. 323, 325.

[94] Op. cit., p. 325.

[95] Op. cit., p. 223.

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The facts attesting the pertinacity with which the distinguishing physical characters of the different races of men maintain themselves through long periods of time, and under very varying conditions, are as numerous as they are striking. The Arabian type of men, as seen to-day upon the burning plains of Arabia, or in the fertile regions of Malabar, Coromandel, and the islands of the Indian Ocean, is identical with the representations upon the Egyptian monuments, where, also, we find figures of the prognathous Negro head, differing not a whit from that type as it now exists. From their original home in Palestine, the Jews have been scattered abroad through countries differing most widely in climatic and geographical features,[96] and, in many instances, have departed from their primitive habits of life, yet under every sky, and in every latitude, they can be singled out from amidst other human types. In the streets of San Francisco or London, on the arid wastes of Arabia, and beneath a cloudless Italian sky, the pure unmixed Jew presents us with the same facial lineaments, and the same configuration of skull. "J'ai eu occasion," writes GOBINEAU, "d'examiner un homme appartenant à cette dernière catégorie (Polish Jews). La coupe de son visage trahissait parfaitement son origine. Ses yeux surtout étaient inoubliables. Cet habitant du Nord, dont les ancêtres directs vivaient, depuis plusieurs générations, dans la neige, semblait avoir été bruni, de la veille, par les rayons du soleil Syrien." The Zingarri or Gypsies everywhere preserve their peculiar oriental physiognomy, although, according to BORROW, there is scarcely a part of the habitable world where they are not to be found; their tents being alike pitched on the heaths of Brazil, and the ridges of the Himalayan hills; and their language heard at Moscow and Madrid, in the streets of London and Stamboul. Wherever they are found, their manners and customs are virtually the same, though somewhat modified by circumstances; the language they speak amongst themselves, and of which they are particularly anxious to keep others in ignorance, is in all countries one and the same, but has been subjected more or less to modification; their countenances exhibit a decided family resemblance, but are darker or fairer, according to the temperature of the climate, but invariably darker, at least in Europe, than the natives of the countries in which they dwell, for example, England and

[96] We find them scattered along the entire African Coast, from Morocco to Egypt, and appearing in other parts of this continent, numbering, according to Weimar, some 504,000 souls. In Mesopotamia and Assyria, Asiatic Turkey, Arabia, Hindostan, China, Turkistan, the Province of Iran; in Russia, Poland, European Turkey, Germany, Prussia, Netherlands, France, Italy, Great Britain, and America, they are numbered by thousands.

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Russia, Germany and Spain.[97] The physical characters of the present Assyrian nations identify them with those who anciently occupied the same geographical area, and who are figured on the monuments of Persepolis, and the bas-reliefs of Khorsabad.

"Notwithstanding the mixtures of race during two centuries," says Dr. PICKERING, "no one has remarked a tendency to a development of a new race in the United States. In Arabia, where the mixtures are more complicated, and have been going on from time immemorial, the result does not appear to have been different. On the Egyptian monuments, I was unable to detect any change in the races of the human family. Neither does written history afford evidence of the extinction of one physical race of men, or of the development of another previously unknown."[98]

The population of Spain, like that of France, consists of several races ethnically distinct from each other. From these different strata, so to speak, of the Spanish people, have been derived the inhabitants of Central and South America. Of these settlers in the New World, HUMBOLDT thus speaks:

"The Andalusians and Carrarians of Venezuela, the Mountaineers and Biscayans of Mexico, the Catalonians of Buenos Ayres, evince considerable differences in their aptitude for agriculture, for the mechanical arts, for commerce, and for all objects connected with intellectual development. Each of these races has preserved in the New as in the Old World, the shades that constitute its national physiognomy; its asperity or mildness of character; its freedom from sordid feelings, or its excessive love of gain; its social hospitality, or its taste for solitude. . . . . In the inhabitants of Caraccas, Santa Fé, Quito, and Buenos Ayres, we still recognise the features that belong to the race of the first settlers."[99]

A remarkable instance of this permanence of physical character is shown in the Maragatos or Moorish Goths, whom, BORROW informs us, are perhaps the most singular caste to be found amongst the chequered population of Spain.

"They have," says he, "their own peculiar customs and dress, and never intermarry with the Spaniards. . . . . There can be little doubt that they are a remnant of those Goths who sided with the Moors on their invasion of Spain. . . . . It is evident that their blood has at no time mingled with that of the wild children of the desert: for scarcely amongst the hills of Norway would you find figures and faces more essentially Gothic than those of the Maragatos. They are strong athletic men, but loutish and heavy, and their features, though for the most part well formed, are vacant and devoid of expression. They are slow and plain of speech, and those eloquent and imaginative sallies, so common in the conversation of other Spaniards, seldom or never escape them; they have, moreover, a coarse, thick pronunciation, and when you hear them speak, you almost imagine that it is some German or English peasant attempting to express himself in the language of the Peninsula."[100] True to their Gothic character, they have managed to monopolize almost the entire commerce of one-half of Spain. They thus accumulate great wealth, and are much better fed than the parsimonious Spaniard. Like men of a more northern clime, they are fond of spirituous liquors and rich meats.

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[97] The Zincali; or, An Account of the Gypsies of Spain. By Geo. Borrow. New York, 1851, p. 8.

[98] Races of Men. U. S. Exploring Expedition, vol. IX.,1848, p. 345.

[99] Personal Narrative.

[100] Bible in Spain, Chap. XXIII.

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In another place, BORROW tells us that in the heart of Spain, he came across two villages — Villa Seca and Vargas — the respective inhabitants of which entertained for each other a deeply-rooted hostility — rarely speaking when they met, and never intermarrying. The people of Vargas — according to tradition, "Old Christians," — are light and fair; those of Villa Seca — of Moorish origin — are particularly dark complexioned.[101] Many examples similar to this can be pointed out, where a mountain ridge, a valley, or a narrow stream forms the only dividing line between races who differ from each other in language, religion, customs, physical and mental qualities, &c. This is particularly seen, according to HAMILTON SMITH, in the Neelgherries, the Crimea, the Carpathians, the Pyrenees, the Alps, the Atlas, and even in the group of Northern South America.[102]

"The Vincentine district," says a writer in the *Edinburgh Review*, "is, as every one knows, and has been for ages, an integral part of the Venetian dominions, professing the same religion, and governed by the same laws, as the other continental provinces of Venice; yet the English character is not more different from the French, than that of the Vincentine from the Paduan; while the contrast between the Vincentine and his other neighbor, the Veronese, is hardly less remarkable."[103]

In a letter, dated United States Steamer John Hancock, Puget Sound, July 1st, 1856, and recently received from my friend and former school-mate, Dr. T. J. TURNER, U. S. N., I find the following paragraph, which bears upon the subject under consideration: "On each side of the Straits of Juan de Fuca live very different tribes, and although the Straits are, on an average, about sixty miles wide, yet they are crossed and re-crossed again and again by canoes, and no admixtures of the varieties (races?) has taken place."

Among other instances of the persistence of human cranial forms, Dr. NOTT figures, in *Types of Mankind*, two heads — an ancient Asiatic (probably a mountaineer of the Taurus chain), and a modern Kurd — which strongly resemble each other, though separated perhaps by centuries of time. A still better example of this permanence of type, and one which involves several peculiar and novel reflections as to the relation of the Scythæ to the modern Suomi or Finns, and through these latter to the Caucasian, or Indo-Germanic forms in general, is found in the fact that the skull of a Tchude, "taken from one of the very ancient burial-places which are found near the workings of old mines in the mountainous parts of Siberia," and figured by Blumenbach, is exactly represented in Morton's collection by several modern Finnic heads.

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[101] Op. cit., chap. XLIII. [102] Op. cit., p. 174. [103] No. 84, p. 459.

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"Plerasque nationes peculiare quid in capitis forma sibi vindicare constat."—VESALIUS, *De Corpor. Human. Fab.*

"Of all the peculiarities in the form of the bony fabric, those of the skull are the most striking and distinguishing. It is in the head that we find the varieties most strongly characteristic of different races."

PRICHARD, *Researches*, I. 275.

ONE of the most difficult problems in the whole range of cranioscopy, is a systematic and accurate classification of cranial forms. The fewer the groups attempted to be made, the greater the difficulty; since the gradation from one group to another is so insensible, as already intimated, that it is exceedingly perplexing to draw sharp and exact lines of demarcation between them. A moment's reflection will show that a comprehensive group must necessarily embrace many skulls which, though possessing in common certain features by which they are distinguished from those of other groups, will differ from each other, nevertheless, in as many minor but none the less peculiar characters. The difficulty is increased by the utter impossibility of pronouncing positively whether the varieties thus observed are coeval in point of time, as the "original diversity" doctrine maintains; whether they are simply so many "developments" the one from the other, as the advocates of the Lamarkian system aver; or, finally, whether, as the supporters of the "unity" dogma contend, they are all simple modifications of one primary type or specific form. Again, as each group or family of man consists of a number of races, and these, in turn, are made up of varieties and sub-varieties, in some instances almost innumerable, it will be evident that a true classification can only result from the careful study of a collection of crania so vast as to contain not only many individual representations of these races, varieties, &c., but also specimens illustrative of both the naturally divergent and hybrid forms. And here another obstacle presents itself. As a type is the ideal embodiment of a series of allied objects, and as the perfection of this type depends upon the number of the objects upon which it is based, the very necessity of a large number renders it no easy matter to determine what is typical and what is not; or, in other words, what are the respective values of the different characters presented by a skull.

It has not yet been determined how far the physical identity of the individuals composing a nation is a proof of purity of race and the homogeneity of the nation. Neither is the law demonstrated, in obedience to which individual dissimilarities are produced by inter

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mixtures of allied races. The first effect of such intermixture is to disorder the homogeneity of type by the introduction of divergent forms. If the influx of the foreign element is suddenly arrested, these abnormal or accidental forms are absorbed into the primary type. If the introduction is continued over a long period, the homogeneous aspect of the nation is destroyed, and the physical characters of the primary stock, together with those of the disturbing element, disappear, as the fusion proceeds to give rise to a hybrid race blending the characters of both, and assuming a homogeneousness of its own, which, if the fusion were perfect, would very likely lead to the supposition of its being a pure form, especially if the history of these changes was not made known. A cranioscopist having the skulls of such a people in his cabinet, together with specimens of those of the primary stocks from which it sprung, could easily assign it a place in classification, between the other two, but would be puzzled not a little to determine whether it was a primary or secondary form, a pure race or not. A resort to history would here be necessary, just as it is with the naturalist. As the latter, by studying the anatomical peculiarities of an animal in conjunction with its history, establishes its primordial character and durability, so the ethnographer, ascertaining the osteologic differentiæ of the races of men, and contrasting them with the records of remote, historic times, is enabled to point out the durability of certain types through all the vicissitudes of time and place. In this way, alone, can he discriminate primary typical forms from secondary or hybrid — a pure race from a mixed breed.

The thoroughness of the fusion, and the time required to effect it, will depend very much upon the degree of difference between the parent stocks, and upon the relative numbers which are brought into contact. The more closely allied the groups, the more likely are they to fuse completely; the more widely separated, the less likelihood is there of a perfect intermixture.

"The amalgamation of races, there are strong reasons for believing, depends chiefly on their original proximity—their likeness from the beginning. Where races are remote, their hybrid products are weak, infertile, short-lived, prone to disease, and perishable. Where they are primitively nearer in resemblance, there is still an inherent law operating and controlling their intermixture, by which the predominant blood overcomes that which is in minor proportion, and causes the offspring ultimately to revert to that side from which it was chiefly derived. As it is only where the resemblance of races is most intimate that moral antagonisms can be largely overcome, so it is in these cases alone that we may expect to meet with the physical attraction productive of perfect amalgamation; nature, probably, still, at times, evincing her unsubdued resistance by the occurrence of families bearing the impress of one or the other of their original progenitors."[104]

[104] Crania Britannica, p. 8.

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The aboriginal tribes of Australia are among the lowest specimens of humanity — the farthest removed from the European. Now, according to Strzelecki, the women of these tribes are incapacitated from reproducing with males of their own race, after they have once been impregnated by a European.[105] Dr. Thompson, however, expresses his doubt of this statement, and denies its truth with regard to the New Zealand women.[106]

"Il est remarquable que, quoiqu'un grand nombre d'Européens habitent maintenant dans les mêmes contrées que les Andamènes, on ne mentionne pas encore l'existence d'hybrides résultant de leur union. Cette circonstance est peut-être due à ce que la difference entre ces deux extrémitiés de la série humaine rend plus difficile la procréation des hybrides." [107]

Here, then, are the elements of a theory, or rather the indications of an unknown physiological law, whose importance is self-evident, and whose elucidation connects itself with an allied series of phenomena. I allude to the instances in which the progeny of the female by a second husband resemble the first husband in physical appearance, temperament, constitutional disease, &c.

From the above remarks, it will be readily inferred that every additional foreign element introduced into a nation will only serve to render a thorough fusion more and more difficult. Indeed, an almost incalculable time would be required to bring the blending stocks into equilibrium, and thus cause to disappear the innumerable hybrid forms or pseudo-types. As long as the blood of one citizen of such a nation differed in the degree of its mixture from that of another, diverse and probably long-forgotten forms would crop out in the most unaccountable manner, as indications of the past, and obstacles to the assumption of that perfectly homogeneous character which belongs to the pure stocks alone. To be assured of the truth of these propositions, we have but to examine with care the population of any large commercial city, as London, Constantinople, Cadiz, New York, &c.

If, now, it be true, as Count de Gobineau maintains, in his philosophical inquiry into the Cause of National Degeneracy, that a nation lives and flourishes only so long as the progressive and leading ethnical element or principle, upon which it is based, is preserved in a vigorous state, and that the exhaustion of this principle is invariably accompanied with political death, then should the American statesman turn aside from the vapid and mischievous party-questions of the day—questions whose very littleness should permit them to pass

[105] Physical Description of New South Wales and Van Diemen's Land, London, 1845.

[106] British and Foreign Medico-Chirurgical Review for April, 1855.

[107] Des Races Humaines, ou Éléménts d'Ethnographie. Par J. J. D'Omalius D'Halloy. Paris, 1845, p. 186.

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unheeded—and earnestly compare the historical phases of our youthful Republic with those of the fallen Greek and Roman empires, and the already enfeebled English Commonwealth, that he may learn those unalterable laws of political reproduction, evolution, and decay, and thus, forewarned, provide intelligently for the amelioration of that disease whose seeds were planted when the Declaration of Independence was proclaimed, and whose deadly influences threaten, sooner or later, like the Lianes of a tropical forest, to suffocate the national tree over which they are silently spreading.

Though war and slavery, those powerful agents in amalgamation, have been going on, without interruption, from the earliest recorded history of our race down to the present moment, yet certain primary types have maintained themselves, amidst every conflict, and under the most destructive influences, as vestiges or wrecks of the remotest times, and in virtue of a certain inherent and mutual antipathy, as old as the oldest varieties of our race. The instability of human hybrids is as remarkable as the permanency of the pure stocks. The area of the hybrid forms is in all cases limited, and their existence devoid of a self-sustaining power. Where the mixed races are subjected to a modified climatic influence, they for a while appear to maintain themselves, and even extend their locality beyond their primary centres of creation; but, sooner or later, they disappear, either through extermination, or absorption by the purer races, or in consequence of a mysterious degradation of vital energy. Nevertheless, long after their obliteration, they leave their impress upon the conquering and exterminating races, in the shape of modifications of the skull, stature, habits, intellectual conditions, &c. In this instability, this inherent tendency to decay, we discover the great check to the assumption by the hybrid types of that homogeneity which, in all probability, once characterized the primeval groups of man.

"As it is with individual life, so families, tribes, and nations, most likely even races, pass away. In debatable regions, their tenure is only provisional, until the typical form appears, when they are extinguished, or found to abandon all open territories, not positively assigned them by nature, to make room for those to whom they are genial. This effect is itself a criterion of an abnormal origin; for a parent stock, a typical form of the present genus or species, perhaps with the sole exception of the now extinct Flatheads, is, we believe, indestructible and ineffaceable. No change of food or circumstances can sweep away the tropical, woolly-haired man; no event, short of a general cataclycis, can transfer his centre of existence to another; nor can any known cause dislodge the beardless type from the primeval high North-Eastern region of Asia and its icy shores. The white or bearded form, particularly that section which has little or no admixture, and is therefore quite fair, can only live, not thrive, in the two extremes of temperature. It exists in them solely as a master race, and must be maintained therein by foreign influences; and the intermediate regions, as we have seen, were in part yielded to the Mongolic on one side, and but tempo-

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rarily obtained, by extermination from the woolly-haired, on the other."[108] Hybrid forms cannot be regarded as characteristic of a new race; amidst all the confusion of blood, "we look in vain for a new race. Nature asserts her dominion on all hands in a deterioration and degradation, the fatal and depopulating consequences of which it is appalling to contemplate."[109]

To the cranioscopist, the most interesting point, perhaps, in this whole inquiry, is the determination of the particular influence exerted by each parent stock upon the formation of the hybrid cranium. So much obscurity surrounds this question, however, and the facts concerning it are so scanty and conflicting, that I am compelled to forego its discussion in this place, and refer the reader to the writings of WALKER (*Intermarriage; or, Beauty, Health, and Intellect*); COMBE (*The Constitution of Man*); BLAINE (*Outlines of the Veterinary Art*); EDWARDS (*Des Caractères Physiologiques des Races Humaines*); HARVEY (*Monthly Journal of Medical Science, Aug.* 1854); BÉRARD (*Cours de Physiologie*); and particularly, LUCAS (*Traité Philosophique et Physiologique de l'Hérédité Naturelle*).

As already intimated, the attempted classifications of the human family are as numerous as they are various. Those based upon the form of the skull are perhaps the most reliable, since the skull is intimately connected with the intellectual organs, and resists, in a remarkable manner, the altering influences of climate. Among others, the most simple, though in some respects objectionable, is that of Prof. RETZIUS, who, in an essay upon the cranial forms of Northern Europe,[110] divides all heads into Long (*Dolichocephalæ*) and Short (*Brachycephalæ*). Each of these he again subdivides into Straight-Jaws (*Orthognathæ*) and Prominent-Jaws (*Prognathæ*). The races comprised in each of these divisions are seen in the accompanying scheme.

Long heads	Straight jaws	Celtic and Germanic tribes.
	Prominent jaws	Negroes, Australians, Oceanians, Caribs, Greenlanders, &c.
Short heads	Straight jaws	Laplanders, Finns, Sclaves, Turks, Persians, &c.
	Prominent jaws	Tartars, Mongolians, Malays, Incas, Papuas, &c.

Prof. ZEUNE, after animadverting upon what he calls the "one-sided polarity" of this classification, adopts three main forms or types of skull for the Eastern, and three corresponding types for the Western hemisphere, thus dividing mankind into six races, as is shown in the subjoined table:[111]

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[108] Hamilton Smith, op. cit., p. 175.

[109] Davis, Cran. Brit., p. 7.

[110] Ueber die Schädelformen der Nordbewohner. — Müller's Archives, 1845, p. 84.

[111] Über Schädelbildung, pp. 19, 20.

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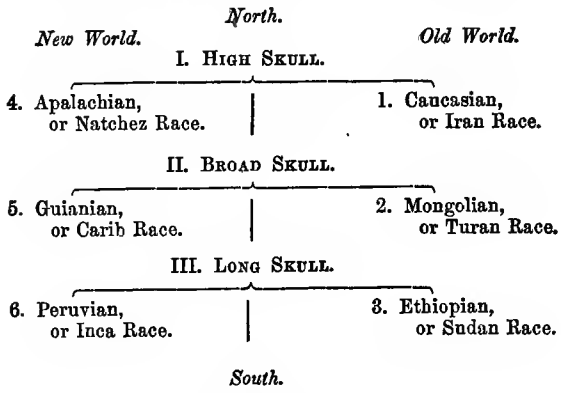

A serious objection to this division exists in the fact that the so-called *high* skulls, in many important features, differ as much from each other, as they do from the *broad* and *long* skulls, and this is equally predicable of each of these last two varieties, as compared with the first. Moreover, the requirements of science discountenance all attempts at the indiscriminate arrangement of artificially deformed with natural skulls. Prichard divides all skulls into 1. The symmetrical or oval form, which is that of the European and Western Asiatic nations; 2. The narrow and elongated or prognathous skull, of which the most strongly marked specimen is perhaps the cranium of the Negro of the Gold Coast; 3. The broad and square-faced or pyramidal skull, which is that particularly of the Turanian nation.[112]

Want of space, alone, prevents reference to other systems. However, regarding nature as an harmonious and indivisible whole, and believing with the venerable Humboldt, that it is impossible to recognize any typical sharpness of definition between the races;[113] and with the eminent German physiologist, Johannes Muller, that it is incontestably more desirable to contrast the races by their *constant* and *extreme* forms;[114] and finally, inclining to the opinion so ably argued by Gérard,[115] and entertained by Knox,[116] and others,

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[112] Researches into the Physical History of Mankind. London, 1836. Vol. I. p. 281.

[113] Cosmos: A Sketch of a Physical Description of the Universe. By Alexander Von Humboldt. Translated from the German by E. C. Otté. New York, 1850. Vol. I. p. 356.

[114] Handbuch der Physiologie des Menschen. Bd. II., s. 775.

[115] Dictionnaire Universel d'Histoire Naturelle. Dirigé par M. Chas. d'Orbigny. Art. Espèce, par Gérard; t. 5ème.

[116] "In time there is probably no such thing as species; no absolutely new creations ever took place; but as viewed by the limited mind of man, the question takes another aspect. As regards his individual existence, time is a short span; a few centuries, or a few thousand years, more or less; this is all he can grasp. Now, for that period at least, organic forms seem not to have changed. So far back as history goes, the species of ani-

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that species occupy no absolutely permanent place in nature's method, and that all specific distinctions are, therefore, fallacious — I have deemed it more judicious, in the present state of our science, to avoid any similar attempt at a classification, preferring to lay before the general reader a panoramic view of a few of the almost innumerable cranial forms which the traveller meets with in making a tour of the surface of the earth. But, in order to avoid misconceptions, a few preliminary remarks will be necessary before proceeding with our proposed survey. If, to facilitate our progress, we divide the earth's surface into several regions or realms, the limits of each being determined by the geographical distribution of its peculiar organic forms, and represent each by a cranial form selected from among its most numerous and apparently indigenous inhabitants, we will obtain a series of typical or standard figures, similar to those constituting the second column of the extensive "Ethnographic Tableau" accompanying this work. With one exception, the crania figured in the tableau are contained in the Mortonian collection. Taken by means of the camera lucida, in the hands of the accomplished Mrs. Gliddon, I can vouch for the general accuracy of the drawings, and their truthfulness to nature. The exception alluded to is a drawing of Schiller's skull (C), borrowed from the cranioscopic atlas of Carus. Forced by the arrangement of the Tableau to represent the entire European area by two crania instead of many, I have selected the above figure because it embraces both Gothic and Sclavonic characters, and may be taken therefore as a standard for Central and Eastern Europe in general; while the more elongated Circassian skull (D) may be regarded as a not inappropriate representative of Southern and South-eastern Europe. Now it is quite evident that all attempts at representing the skull-forms of the numerous races of men by a few figures (as in the Tableau), must necessarily be imperfect, and consequently open to criticism. I wish the reader, therefore, distinctly to understand that the skulls figured in the Tableau are merely so many examples, each of a cranial type, more or less numerously represented, and prevailing over a greater or less extent of the particular geographical area to which it belongs. Each figure represents not the whole realm in which it is placed, but one only of the characteristic forms of that realm. The Negro head (E), for example, is not *the* standard of the entire African continent, but *a* peculiar form found there, and nowhere else. To represent the whole of this continent, many heads would be required.

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mals, as we call them, have not changed; the races of men have been absolutely the same. They were distinct then for that period as at present." — *Races of Men*, p. 34.

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This is true of all the other realms. With each of the nine figures (except that from Carus) the facial angle and internal capacity have been given. The reader will observe, and perhaps with surprise, that the Eskimo and Kalmuck heads have the largest internal capacity, larger even than the European skulls; while the Kalmuck possesses also the highest facial angle. Let him not be misled, however, by this accidental fact. For these measurements in this instance express individual peculiarities, rather than race-characters. Moreover, the heads in question have been selected entirely with reference to their external osteological characters. The facial angles given by Morton in his Catalogue should not be relied upon too implicitly, since they have been taken by means of an instrument which, in different, but equally careful hands, yields different results for the same head. To measure the facial angle with unerring mathematical precision, an accurate photographic outline of the head in a lateral view should be first obtained; upon this figure the facial and horizontal lines of Camper should next be drawn, and the angle then measured with a finely graduated protractor. To avoid any further allusion to the cranial capacity of the different races of men, I here subjoin the two following tables, taken from my manuscript copy of the fourth edition of Morton's Catalogue. Table I. has been enlarged from that given on page viii. of the third edition, by the interpolation of forty measurements, with the effect of increasing the mean cranial capacity of the Teutonic Family, the Mongolian and American Groups by 1.5, 5, and 1.3 cubic inches respectively; and slightly diminishing that of the Negro Group. Table II. has been constructed from the measurements recorded in different parts of the Catalogue.

(The letters "I. C." mean internal capacity.)

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TABLE I. — Showing the Size of the Brain in cubic inches, as obtained from the internal measurement of 663 Crania of various Races and Families of Man.

RACES AND FAMILIES.	NO. OF SKULLS.	LARGEST I. C.	SMALLEST I. C.	MEAN.	MEAN.
MODERN CAUCASIAN GROUP.					
Teutonic Family.					
Swedes	11	108.25	65	93	93.5
Germans, Prussians	15	114	70	95	
English	5	105	91	96	
Anglo-Americans	7	97	82	90	
Tchudic Family.					
True Finns	9	112.5	81.5	94.3	
Celtic Family.					
Native Irish	6	97	78	87	
Pelasgic Family.					
Persians, Armenians, Circassians	10	94	75	84	
Semitic Family.					
Arabs	8	98	84	89	
Nilotic Family.					
Fellâhs	18	96	66	79	
Indostanic Family.					
Ayras	8	91	79	86	81.7
Bengalees	25	90	67	78	
ANCIENT CAUCASIAN GROUP.					
From the Catacombs, *Pelasgic Family.*					
Græco-Egyptians	18	97	73	87	
From the Catacombs, *Nilotic Family.*					
Egyptians	55	96	68	80	
MONGOLIAN GROUP.					
Chinese Family	10	98	70	85	87
Hyperborean Family	8	102	78.75	89	
MALAY GROUP.					
Malayan Family	20	97	68	86	85
Polynesian Family	5	90.5	82	84.3	
AMERICAN GROUP.					
Toltecan Family.					
Peruvians	152	101	58	75.3	80.3
Mexicans	25	92	67	81.7	
Barbarous Tribes.					
Iroquois, Lenape, Cherokee, Shoshoné, &c.	164	104	69	84	
NEGRO GROUP.					
American-born Negroes	12	86	73	80.8	82.25
Native African Family	64	99	65	83.7	
Hottentot Family	3	83	68	75.3	
Alforian Family					
Australians	8	83	63	75	
Oceanic Negroes	2	77	76	76.5	

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TABLE II.

American Crania.

Barbarous Tribes.	*No. of Skulls measured.*	*Mean I. C.*
North Americans.		
Arickarees	3	76
Assinaboins	3	90
Chenonks	4	79
Oregon Tribes	5	82
Cherokees	4	88.7
Chetimaches	2	79.5
Chippeways	2	91
Cotonay	3	86
Creeks	4	88.7
Dacota	1	90
Hurons	4	81.5
Iroquois	2	96
Lenape	4	79.5
Lipans	2	91.5
Mandans	7	83.5
Menominees	7	84
Miamis	5	86
Minetaris	4	86.5
Mohawks	3	84
Narragansets	10	81
Osage	2	82.5
Otoes	3	85.6
Ottawas	4	81.7
Ottigamies	2	93.5
Pawnees	2	74.5
Penobscot	1	80
Pottawatomies	3	91
Sanks	2	90.7
Seminoles	13	84
Shawnees	4	89.6
Shoshones	4	80.7
Upsarookas	2	94
Winnebagos	2	89
Yamassees	1	70
Californians	1	87
Miscellaneous, Mound, Caves, Uncertain, &c.	27	84.8
Central American	1	91
South Americans.		
Araucanians	7	76
Brazilians	3	73.6
Charib	1	89

Toltecan Race.	*No. of Skulls measured.*	*Mean I. C.*
Peruvian Family.		
Arica	14	79
Pachacamac	77	74.9
Pisco	44	74
Santa	5	78
Lima	5	78
Miscellaneous.	7	75.5
Mexican Family.		
Tlahuica	1	84
Azteck	2	80.5
Otumba	3	82.6
Tacuba	3	81.6
Otomie	5	76.6
Chechemecan	1	83
Tlascalan	1	84
Pames	2	79.5
Miscellaneous.	4	87
Modern Mexicans	3	82.6

*** If we take the collective races of America, civilized and savage, we find that the average size of the brain as measured in the whole series of 341 skulls, is but 80.3 cubic inches.

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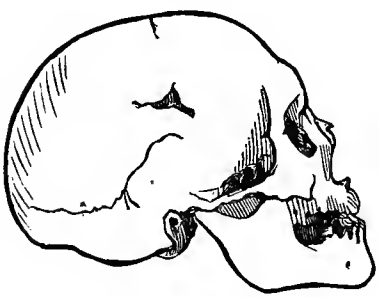
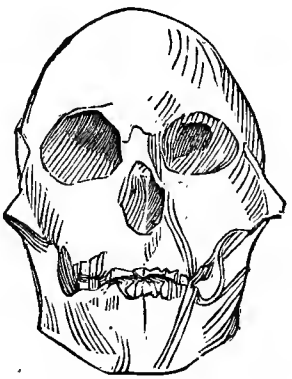
Upon those outstretched desert wastes which skirt the Icy Sea — the frozen *tundras* of Siberia, and the *barren lands* of America — amidst the snowy islands and everlasting icebergs of the Polar Ocean itself, the human family presents us with a cranial form or type, to which the learned PRICHARD has very happily applied the term *pyramidal*. Amongst all the Hyperboreans, whose life is one continued struggle with a stern and rugged nature, the central and far northern Eskimos present us with the most strongly marked specimens of this type. I have been induced, therefore, to select, as the standard or typical representative of Arctic Man, a well-characterized Eskimo cranium, procured by that zealous and intrepid navigator, Dr. E. K. KANE, during his first voyage to the North, and by him kindly placed, along with three other specimens, in the collection of our Academy. Through the kindness of Dr. I. I. HAYES and Dr. J. K. KANE, I have been enabled to mature my studies of the pyramidal form over seven Eskimo skulls in all, a detailed account of which I hope shortly to be able to present to the ethnological public through another channel. The following brief *résumé* of the characteristics of an Eskimo cranium will serve as a commentary upon the accompanying figures, which represent the front and lateral views of the head above mentioned (No. 1558 of the Mortonian collection). The male Eskimo

Fig. 10.



Lateral view of Cranium.

Fig. 11.



Front view of same.

ESKIMO.

(*From Dr. Kane's First Arctic Voyage.*)

skull is large, long, narrow, pyramidal; greatest breadth near the base; sagittal suture prominent and keel-like, in consequence of the angular junction of the parietal and two halves of the frontal bones; proportion between length of head and height of face as 7 to 5; proportion between cranial and facial halves of the occipito-mental diameter as $4\frac{1}{2}$ to 5; attachment for the temporal muscle large, zygomatic fossæ deep and capacious; mastoid processes thick and

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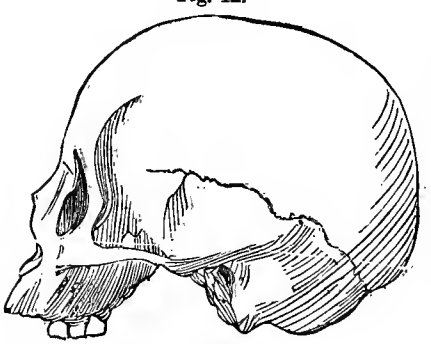
prominent; glenoid cavity capacious, and adapted to considerable lateral motion of the condyles; forehead flat and receding; occiput full and salient; face broad and lozenge-shaped, the greatest breadth being just below the orbits; malar bones broad, high, and prominent, the external surface looking antero-laterally; orbits large and straight; zygomatic arches massive and widely separated; length of the face one inch less than the breadth; nasal bones flat, narrow, and united at an obtuse angle, sometimes lying in the same plane as the naso-maxillary processes; superior maxilla massive and prognathous, its anterior surface flat and smooth; superior alveolar margin oval; inferior margin of anterior nares flat, smooth, inclining forwards and downwards; inferior maxilla large, long, and triangular; semi-lunar notch quite shallow; angles of the jaw flared out, and chin prominent; teeth large, and worn in such a manner as to present, in the upper jaw, an inclination from without inwards, upwards, and laterally, and in the lower jaw, just the reverse; antero-posterior diameter of cuspids greater than the transverse; configuration of the basis cranii triangular, with the base of the triangle forward between the zygomæ, the truncated apex looking posteriorly; breadth of base about one-half the length; shape of foramen magnum an irregular oval; anterior margin of foramen magnum on a line with the posterior edge of the external meati.[117]

The female cranium differs from the male in being smaller, lighter, and presenting a smoother surface and more delicate structure. The malar bones are less massive, the face not quite so broad, and the anterior surface of the superior maxilla concave rather than flat.

Fig. 12.



TCHUKTCHI.
(*N. Pacific Explor. Exp., U. S. Corvette "Vincennes," under Capt. Rodgers, U. S. N.*, 1856.)

With very slight and insignificant variations, this type prevails along the whole American coast north of the 60th parallel, and from the Atlantic Ocean to Bhering's Straits, ranging through 140° of longitude, or over a tract of some 3500 miles. Nor does it altogether stop here, as is shown in the accompanying figure of a Tchuktchi skull—one of three, brought by Mr. E. M. KERN from the Island Arakamtchetchem, or Kayne, at Glassnappe Harbor, Lat. 64°

[117] From my unpublished "Descriptions and Delineations of Skulls in the Mortonian Collection."

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40′ N., Long. 172° 59′ W. of Greenwich—and by him kindly loaned to me for examination and study. The above island forms part of the western bank of Bhering's Straits. "The name of the village," writes Mr. KERN, "to which the burial-place belonged, whence the skulls were procured, is Yergnynne. . . . . In stature, the (Tchuktchi) men are of good height, well built and active. The women are generally small, well made, and have exceedingly pretty hands and feet. Their mouths are generally large; the upper lip is full and projecting, and the eyes long and narrow."[118]

Leaving the Koriaks, and travelling southward, we next encounter the Kamschatkans, a once numerous, though now scanty and miserable race, occupying chiefly the southern portion of the peninsula which bears their name. It has been observed that this people, though presenting most of the physical characters common to the Polar tribes, are not strictly identical with the latter, as is shown in their moral and intellectual character. STOLLER was led by their physical traits to class them among the Mongolians, while PRICHARD speaks of them as "a distinct race, divided into four tribes, who scarcely understand each other."[119] Dr. MORTON appears to consider them as a hybrid people. "It must be admitted," says he, "that the southern Kamskatkans, in common with the southern tribes of Tungusians and Ostiaks, have so long mixed with the proximate Mongol-Tartar hordes, that it is, in some measure, arbitrary to class them definitively with either family, for their characters are obviously derived from both."[120] An attentive study of the cast of a Kamtskatkan cranium (No. 725 of the Mortonian collection), and comparison with Plate LXII. of Blumenbach's *Decades*, leave little doubt in my mind of a sensible departure from the pyramidal type which predominates to the north. The cast in question was presented to Dr. Morton by Dr. O. S. Fowler. It is long and flat, and presents quite a different proportion between the bi-temporal, longitudinal, and vertical diameters from what we find in the heads of the true Hyperboreans. The low, flat, and smooth forehead is devoid of the keel-like formation perceptible in the Eskimo. The carinated ridge makes its appearance along the middle and posterior part of the inter-parietal suture. The widest transverse diameter is near the superior edge of the temporal bone; from this point the diameter contracts both above and below. As in the Eskimo, the occiput is full and prominent, as is also the posterior surface of the parietal bones, which surface, in the Eskimo, however, is flat. The forehead inclines upwards and back-

[118] Letter to Mr. Geo. R. Gliddon, dated Washington, Oct. 16th, 1856.

[119] Nat. Hist. of Man, 3d Edition, p. 223.

[120] Crania Americana, p. 52.

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wards to a prominence in the middle of the inter-parietal suture, from which point it is rounded off posteriorly. The face forms a broad oval; the orbits are large, deep, and have their transverse axes at right angles with the median line of the face. The malar bones, though large, are neither so prominent nor high as in the Eskimo. They are laterally compressed, more rounded, and less flared out at their inferior margin than in the Polar man. The anterior nares are flat and smooth, and the alveolar arch somewhat more prominent than in the typical Eskimo, as is shown by comparing them by the *norma verticalis*. Upon examining the basis cranii, we observe, at once, the globular fulness of the occipital region, and an alteration in the general configuration of the base, as compared with that of our Arctic standard. The greatest breadth is not confined to the zygomatic region, for lines drawn from the most prominent point of the zygomæ to the most prominent point of the mastoid process, on either side, are parallel to each other. Did space permit, other distinctions could readily be pointed out.

From this description, coupled with the foregoing statements, it will be seen that the Kamtskatkans are either a distinct people, occupying the gap or transitionary ground between the Polar tribes and the Mongols; or, they are the hybrid results of an intermixture of these two great groups; or, finally, and to this opinion I incline, they constitute the greatest divergency of which the true Arctic type is capable. The cast above described being that of a female, and the only one, moreover, to which I can obtain access, I am unable to arrive at any more definite conclusion.

Of the skulls of the Yukagiri, an obscure and very little known race, dwelling to the westward of the Koriaks, Morton's collection, unfortunately, contains not a single specimen; nor can I find drawings of them in any of the many works which I have consulted. According to Prichard, as a pure race they are now all extinct, having been exterminated in their wars with the Tchuktchi and Koriaks.[121]

Extending along the cheerless banks of the Lena, from the borders of the Frozen Ocean as far south as Alden, and occupying the country between the Kolyma and Yennisei, we find the Yakuts, or "isolated Turks," as Latham styles them, a people who, although surrounded by Hyperboreans, contrast remarkably with the latter in language, civilization, and physical conformation. These people constitute an interesting study for the cranioscopist. They are described as a pastoral race, of industrious and accumulative habits, and manifesting a higher degree of civilization than their ichthyophagous Tungusian and Yukagyrian neighbors. In consonance with this higher condi-

[121] Op. cit., p. 223.

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tion, the skull, as shown in Tab. XV. of the *Decades*, differs decidedly from the prevailing pyramidal form of this region. The reader will at once observe, upon referring to that table, the nearly square contour of the head, approximating the Mongolian type, presently to be represented, the large and widely separated orbits, the full and prominent glabella, the ossa nasi narrow and curving to a point above, and the parietal bones projecting laterally. The descriptions given by Gmelin and Erman of the Yakuts are, to some extent, confirmatory of the characters above indicated.

The present remarkable locality of the Yakuts is undoubtedly not their original home. Their language is Turkish — intelligible in Constantinople — and their traditions, unlike those of their Arctic neighbors, point to the South. They afford a singular example of "a weak section of the human race pressed into an inhospitable climate by a stronger one."[122] Difficulties of classification have been raised upon certain slight physical resemblances between the Yakuts and the surrounding tribes. These resemblances may be regarded as the indirect results of the great Mongolic expansion, which, while it crowded the main body of the Turkish population to the South, allowed a small portion to escape to the North-East, in the inhospitable region of the Lena, where, intermarriage, to some extent, soon followed. We may readily suppose that, in consequence of the numerical predominance of the aboriginal inhabitants of these regions over the new comers, the intermixture resulted in the latter assuming, to a certain extent, some of the physical characters of the former. But the language of the Yakuts, being more perfect than that of the Indigenæ, has maintained its supremacy.

Upon the mountainous tract, comprised between the Yennesei River and the Okhotsk Sea in one direction, and the Arctic Ocean and Alden Mountains in the other, we encounter an interesting people, represented by the Tongus in the North and the Lamutes in the East. They possess a peculiar language, and, anterior to the sixteenth century, appear to have been a powerful race. In his physical description of the Tungusians, PALLAS says that their faces are flatter and broader than the Mongolian, and more allied to the Samoiedes, who lie to the west of them.[123] In his Table XVI., BLUMENBACH represents the cranium of a Northern or Reindeer Tungus. Though the characteristic breadth of face below the eyes is preserved, and with it, thereby, the lozenge-shaped face, yet the general form of the head has undergone some modification. BLUMENBACH very briefly describes this head in the following terms:

[122] Latham, Varieties of Man, p. 95.

[123] Voyages en diverses Provinces, T. 6.

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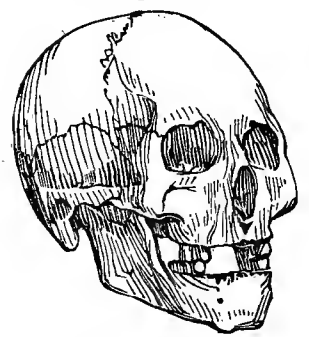
"The face flat, and very broad between the zygomatic arches; the forehead depressed, and the nasal openings ample: the occiput remarkably prominent, so that the distance between the external occipital protuberance and the superior incisors is equal to nine inches."

The Samoiedes present us with a conformation of the cranium approximating more closely to the Eskimo than any of the tribes just mentioned. They are conterminous with the Tungus of North-Eastern Asia, on the one hand, and the great Tchudic or Ugrian tribes of European Russia, on the other. PALLAS says of them, "ils ont le visage plât, rond, et large." . . . . "Ils ont de larges lèvres rètrousées, le nez large et ouvert, peu de barbe, et les cheveux noirs et rudes." TOOKE ascribes to them "a large head, flat nose and face, with the lower part of the face projecting outwards; they have large mouths and ears, little black eyes, but wide eyelids, small lips, and little feet."[124] "Of all the tribes of Siberia," says LATHAM, "the Samoiedes are nearest to the Eskimo or Greenlanders in their physical appearance."[125]

BLUMENBACH tells us that a Samoiede cranium in his collection, bears a striking resemblance to the skulls of native Greenlanders, two of which are figured in the *Decades*. The resemblance is shown in the broad, flat face, depressed or flattened nose, and general shape or conformation of the skull. The nasal bones are long and narrow. This head is represented in Fig. 13, reduced from Tab. LIV. of Blumenbach's series.

Fig. 13.



SAMOIEDE.
(*Decades*, Tab. LIV.).

Of all the Northern or Arctic races of men, thus hastily passed in review, the Eskimo alone appear to exhibit the pyramidal type of cranium in its greatest intensity. Viewed in conjunction with the following statements, this apparently isolated and accidental fact acquires a remarkable significance.—On the shores of Greenland and the banks of Hudson's Straits, along the Polar coast-line of America, and over the frozen *tundras* of Arctic Asia, on the desolate banks of the Lena and Indigirka, and among the deserted Isles of New Siberia —visited only at long intervals by the daring traders in fossil ivory —everywhere, in fact, throughout the Polar Arch, are found the same primitive graves and rude circles of stones, the same stone axes and fragments of whalebone rafters—the ancient and mysterious

[124] Russia, III., p. 12, quoted in Crania Americana, p. 51.
[125] Varieties of Man, p. 267.

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vestiges of a people presenting, in general, the same physical characters, speaking dialects radically the same, and differing but little in manners and customs — a people once numerous, but now gradually hastening on to extinction. Arctic navigators speak of the diminishing numbers of the Eskimo, and Siberian hunters tell of the disappearance of entire tribes, such as the Omoki, "whose hearths were once more numerous on the banks of the Lena than the stars of an Arctic night." The earlier whalers who dared the northern waters of Baffin's Bay, often allude to the great numbers of the natives seen on the land in this region, and from the recent intrepid seekers of the ill-fated Sir John Franklin, we learn that the traces of these people increase in numbers with the latitude. Thus, according to OSBORN, the northern shores of Barrow's Strait and Lancaster Sound bear numerous marks of human location, whereas, upon the southern side, they are comparatively scarce. He tells us, also, that from the estuary of the Coppermine to the Great Fish River, the Eskimo traces are less numerous than on the north shore of Barrow's Strait.[126] Again, the traditions of the Eskimo point to the north as their original home. Erasmus York spoke of his mother as having dwelt in the north; while the inhabitants of Boothia told Ross that their fathers fished in northern waters, and described to him, with considerable accuracy, the shores of North Somerset. When Sacheuse told the natives of Prince Regent's Bay, that he came from a distant region to the south, they answered "That cannot be; there is nothing but ice there."[127] So, the natives of North Baffin's Bay were ignorant of the existence of numerous individuals of their own race, living to the south of Melville's Bay. According to Egede and Crantz, the southern Eskimo of Greenland consider themselves of northern origin. Their traditions speak of remote regions to the north, and of beacons and landmarks set up as guides upon the frozen hills of that dreary land. In connection with these facts, consider for a moment the unfavorable physical conditions to which the Eskimo is exposed. GUYOT thus forcibly alludes to these conditions:

"In the Frozen Regions," says he, "man contends with a niggardly and severe nature; it is a desperate struggle for life and death. With difficulty, by force of toil, he succeeds in providing a miserable support, which saves him from dying of hunger and hardship, during the tedious winters of that climate." And again, "The man of the Polar Regions is the beggar, overwhelmed with suffering, who, too happy if he but gain his daily bread, has no leisure to think of anything more exalted."[128]

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[126] Arctic Journal; or, Eighteen Months in the Polar Regions. By Lieut. S. Osborn.

[127] Ross's First Voyage to Baffin's Bay, p. 84.

[128] Earth and Man. By Arnold Guyot, Boston, 1850, p. 270.

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In this melancholy picture, nature is seen warring with herself. A people forced to protect themselves against the severity of an excessive climate by the consumption of a highly carbonaceous and stimulant diet, which, sooner or later, begets plethora and its attendant hemorrhagic tendencies, can scarcely be regarded as a normal people, harmoniously adapted to the circumstances by which they are surrounded. Yet such is the condition of hyperborean man. But here a singular question presents itself. Have the Arctic tribes of men *always* been subjected to the inhospitable climate which, at the present day, characterizes the North? Was there, in other words, a time when they enjoyed a climate as mild as that which surrounds their cranial analogues — the Hottentots — who roam the plains of Kafirland in temperate Southern Africa? To the recent speculations of climatologists, concerning the distribution of temperature about the pole, and the probable existence of an open Polar Sea; to the observations of the physical geographer relative to the gradual and progressive upheaval of the Arctic coast, and the climatic changes which necessarily accompanied such alterations in the relation of land and water; and, finally, to the facts and theories adduced by the geologist to account for the presence, in very high latitudes, of fossil remains, both animal and vegetable—whose living representatives thrive in tropical climates only,—must we look for a solution of the above curious question, which I introduce here merely as one of a connected series of facts and arguments which seem to indicate that the Eskimo are an exceedingly ancient people, whose dawn was probably ushered in by a temperate climate, but whose dissolution now approaches, amidst eternal ice and snow; that the early migrations of these people have been from the north southwards, from the islands of the Polar Sea to the continent and not from the mainland to the islands; and that the present geographical area of the Eskimo may be regarded as a primary centre of human distribution for the entire Polar Zone.

To this subject I hope to return, in a more detailed manner, hereafter.

We are now in Europe, upon the *terra damnata*, so graphically described by Linnæus, where the Laplander offers himself for our inspection, as the only European who in any way represents the Arctic type of cranium.

The exact position of the Lapps in classification, is still an open question. Prof. AGASSIZ classifies them with the Eskimos and Samoiedes.

"Within the limits," says he, "of this (Arctic) fauna we meet a peculiar race of men, known in America under the name of Eskimaux, and under the names of Laplanders,

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Samoiedes, and Tchuktshes in the north of Asia. This race, so well known since the voyage of Captain Cook, and the Arctic expeditions of England and Russia, differs alike from the Indians of North America, from the Whites of Europe, and the Mongols of Asia, to whom they are adjacent. The uniformity of their characters along the whole range of the Arctic seas forms one of the most striking resemblances which these people exhibit to the fauna with which they are so closely connected."[129]

PRICHARD, relying upon philological evidence — a very unsafe guide when taken alone — maintains that the Lapps are Finns who have acquired Mongolian features from a long residence in Northern Europe.

"On considère souvent les Lapons," observes D'HALLOY, "comme appartenant à la famille finnoise, à cause des rapports que l'on a observés entre leur langue et celle des Finnois; mais les caractères naturels de ces deux races sont si différents, qu'il me semble indispensable de les séparer. D'un autre côté, tous les linguistes ne sont pas d'accord sur l'analogie de ces langues, et il est probable que les ressemblances se réduisent à l'introduction, dans le langage des Lapons, d'un certain nombre de mots finnois; effet qui a ordinairement lieu quand un peuple sauvage se trouve en relation avec un peuple plus avancé."[130]

LATHAM arranges them, along with Finns, Magyars, Tungus, &c., under the head of Turanian Mongolidæ.[131] Dr. MORTON objects to this association of Lapps and Finns, and very appropriately inquires "how it happens that the people of Iceland, who are of the unmixed Teutonic race, have for six hundred years inhabited their polar region, as far north, indeed, as Lapland itself, without approximating in the smallest degree to the Mongolian type, or losing an iota of their primitive Caucasian features?"[132] Indeed, the fact that the Lapps, at a remote period, lived in Sweden, and even as far south as Denmark,[133] in close juxtaposition with the Finns, is sufficient to account for any resemblances in physical characters, which may be detected between the two. According to Mr. Brooks, the Laplanders and Finns "have scarcely a single trait in common. The general physiognomy of the one is totally unlike that of the other; and no one who has ever seen the two, could mistake a Finlander for a Laplander."[134] He proceeds to state that they differ in mental and moral characters; in the diseases to which they are

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[129] Sketch of the Natural Provinces of the Animal World, and their relation to the different Types of Man, in *Types of Mankind*, p. lxi.

[130] Des Races Humaines, &c., p. 111, note.

[131] Op. cit., p. 101.

[132] On the Origin of the Human Species, *Types of Mankind*, p. 322.

[133] "Ils (les Lapons) forment une petite peuplade éparse dans la Laponie, mais il paraît qu'ils ont été beaucoup plus développés, car on trouve dans la Suède et dans le Danemark des ossements d'hommes qui se rapprochent plus des Lapons que des Scandinaves." D'HALLOY, *op. cit.*, p. 111.

[134] A Winter in Lapland and Sweden. By Arthur de Capell Brooks, M. A., &c. London, 1827, pp. 536–7.

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subject, and, according to Prof. RETZIUS, even the intestinal parasitic worms of the two are unlike.[135] HAMILTON SMITH remarks that the "Finnic race repudiates in national pride all consanguinity with the Laplander."[136] Dr. MORTON considers the Lapps as unquestionably Mongolian. LUKE BURKE, the able editor of the *London Ethnological Journal*, appears to adopt another view:

"The Eskimaux, the Lapp, and the Samoïde, are three entirely distinct beings. They *represent* each other ——. They consequently offer a host of resemblances; but resemblances and affinity are often entirely distinct matters in zoology, though they are constantly confounded, even in cases of the utmost importance. . . . . The Lapp is entirely European, possessing a quite distinct constitution from the Eskimaux and the Samoïde, and being very much higher than either in the human scale, though still by far the lowest portion of the European family. The Samoïde is in all respects a Mongolidæ. Indeed, he has the leading traits of the family even in excess."[137]

A critical examination of three Laplander crania, and two casts, contained in the collection of Dr. Morton, and a comparison of these with a Kalmuck head and a number of Finnic skulls, convince me that the Laplander cranium should be regarded as a sub-typical form, occupying the transitionary place between the pyramidal type of the true Hyperboreans on the one hand, and the globular-headed and square-faced Mongol on the other. Just as upon the shores of Eastern Asia, we behold the Arctic form passing through the Kamtschatkan and the Southern Tungusian into the Central Asiatic type, so in the western part of the great Asio-European continent, we behold a similar transition through the Lapponic into the Tchudic and Scandinavian types — the most northern of the European.

It is strictly true that the skulls of the Eskimo, Laplander, and

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[135] The following curious paragraph, relating to *entozoal* ethnology, I find in Prof. OWEN'S admirable *Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals* (2d edition, p. 67): "The *Tænia Solium* is that which is most likely to fall under the notice of the British medical practitioner. It is the common species of tapeworm developed in the intestines of the natives of Great Britain; and it is almost equally peculiar to the Dutch and Germans. The Swiss and Russians are as exclusively infested by the *Bothriocephalus latus*. In the city of Dantzig it has been remarked, that only the *Tænia Solium* occurs; while at Königsberg, which borders upon Russia, the *Bothriocephalus latus* prevails. The inhabitants of the French provinces adjoining Switzerland are occasionally infested with both kinds of tapeworm. The natives of North Abyssinia are very subject to the *Tænia Solium*, as are also the Hottentots of South Africa. Such facts as to the prevalent species of tapeworm in different parts of the world, if duly collected by medical travellers, would form a body of evidence, not only of elminthological, but of ethnological interest. In the *Bothriocephalus latus* of some parts of Central Europe and of Switzerland we may perceive an indication of the course of those North-Eastern hordes which contributed to the subversion of the Roman Empire; and the *Tænia Solium* affords perhaps analogous evidence of the stream of population from the sources of the Nile southward to the Cape."

[136] Op. cit., p. 321.

[137] Charleston Medical Journal and Review, July 1856; pp. 446–7.

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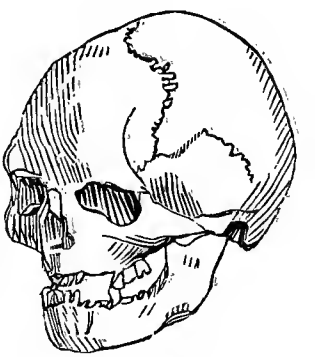
Samoiede are not identical, in the fullest sense of the word. Neither are the localities of these people. The various portions of the so-called Arctic realm, of AGASSIZ, do not accord precisely in geographical and climatic conditions. Arctic America and Asia more closely resemble each other than they do Arctic Europe. The same thing is true, of the skulls, and of the organism generally, of their human inhabitants. A deeply indented sea-border; direct and positive relations to the Gulf Stream which divides upon the Norwegian coast into two great currents, bathes and tempers the whole north-western shore, and supplies an immense body of warm, humid air, which serves to ameliorate the otherwise extremely harsh and rugged climate; a range of lofty mountains running parallel with the western coast, and acting as great condensers of atmospheric vapor;—such are the physical peculiarities which give to Lapland-Europe an organic physiognomy somewhat different from other sections of the Arctic realm. In this region the tree-limit obtains its highest northern position in lat. 70°–71° N., and if we trace this line eastward, on a physical chart, we will find that, under the influence of a continental climate, it recedes towards the Equator, until in Kamtschatka it reaches the ocean in 58° N. latitude. So that while in a considerable portion of Lapland we find a wooded region, in Asia it will be observed that a large part of the country of the Samoiedes and Tungus, and the whole of that of the Koriaks, Yukagirs and Tchuktchi, lie to the north of the wooded zone. Upon the American continent, which is colder under the same parallels than the Asiatic—in consequence of the presence of a greater quantity of land in these high latitudes—the Eskimo live entirely in a treeless region. The distribution of the bread-plants in Northern America, Europe, and Asia, reveals to us similar irregularities. We need not be surprised, therefore, if, in harmony with these varying physical and organic conditions, we should find the Lapland cranium differing more from those of the Eskimo and Samoiede than these two do from each other.

Fig. 14.



LAPLANDER.

The skull here figured is reduced from Tab. XLIII. of the *Decades*. BLUMENBACH describes it as "large in proportion to the stature of the body; the form and appearance altogether such as prevail in the Mongolian variety; the calvaria almost globose; the zygomatic bones projecting outwards; the malar fossa, plane; the forehead broad; the chin slightly prominent

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and acuminated; the palatine arch level; the fissure in the floor of the orbit very large."

Turning our backs upon the Frozen Ocean, and tracing to their sources the three great rivers—the Obi, Yennisei, and Lena—which drain the slopes of Northern Asia, we gradually exchange the region of tundras and barren plains, for elevated steppes or table-lands, the region of the reindeer and dog for that of the horse and sheep, the region whose history is an utter blank for one which has witnessed such extensive commotions and displacements of the great nomadic races, who, probably, in unrecorded times, dwelt upon the central plateaux of Asia, before these had lost their insular character. Travelling thus southward, we further remark that a globular conformation of the human skull replaces the long, narrow, pyramidal type of the North.

In our attempt to exhibit a general view of the cranial forms or types of Central Asia, I deem it best to direct attention to the region of country which gives origin to the Yennisei, about Lake Baikal, and in the Greater Altai chain, south of the Uriangchai or Southern Samoiedes. For we here encounter, in the Kalkas and Mongolians proper of the desert of Shamo, a type of head which is distinct from that of the Hyperboreans, and to which the other great nomadic races are related, in a greater or less degree. I have selected, as the most fitting representative of this Asiatic type or form, the cranium of a Kalmuck (No. 1553 of the Mortonian Collection), sent to the Academy by Mr. CRAMER, of St. Petersburg, shortly after the decease of Dr. Morton. This skull is chosen as a standard for reference, on account of the "extent to which the Mongolian physiognomy is the type and sample of one of the most remarkable divisions of the human race."[138] Moreover, the Mongols possess the physical characters of their race in the most eminent degree,[139] they are the most decidedly nomadic, and their history, under the guidance of Tchengiz-Khan and his immediate successors, constitutes a highly-important chapter in the history of the world; and, finally, because they occupy the centre of a well-characterized and peculiar floral and faunal region, extending from Japan on the east to the Caspian on the west.

In the accompanying figure, the reader will observe that the cranium is nearly globular, while the forehead is broad, flat, and less receding than in the Eskimo and Kamtskatkan. Without being

[138] Latham, Varieties of Man, p. 63.

[139] "It is easy," says Pallas, "to distinguish, by the traits of physiognomy, the principal Asiatic nations, who rarely contract marriage except among their own people. There is none in which this distinction is so characterized as among the Mongols." See Prichard's Nat. Hist. of Man, p. 215.

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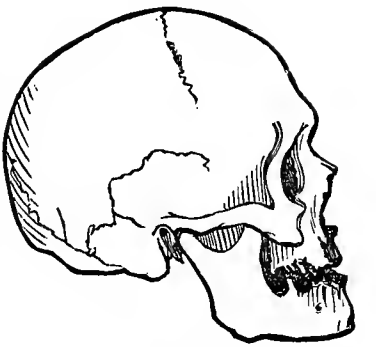
ridged or keel-like, the medium line of the cranium forms a regular arch, the most prominent point of which is at the junction of the coronal and sagittal sutures. Behind and above the meatus, the head swells out into a globe or sphere, instead of tapering away postero-laterally towards the median line, as in the Eskimo crania. This appearance is also well seen in the head figured by BLUMENBACH.[140] He says of it, "habitus totius cranii quasi inflatus et tumidus."

Fig. 15.



KALMUCK.

The eye at once detects the striking difference between the facial angle of this cranium and that of the Eskimo above figured. In the latter, the facial bones resemble a huge wedge lying in front of the head proper. This appearance, it is true, is somewhat dependent upon the obtuseness of the angle of the lower jaw, but mainly, as will be seen, upon the prominent chin and prognathous jaw. In the Kalmuck, the facial bones form a sort of oblong figure, and are by no means so prominent. The face is broad, flat, and square; the superciliary ridges are massive and prominent; the orbits are large, and directed somewhat outwards; the ossa nasi are broad and rather flat, forming an obtuse angle with each other; the malar bones are large, strong, protuberant, and roughly marked.

The impropriety of classifying the Eskimo, Samoiedes, &c., along with the Mongols — an error which pervades many of the books — is clearly manifested, I think, by the above figure and description. If we apply the term Mongolian to the Eskimo, then we must seek some other epithet for the Kalmuck. The heads of the two races contrast strongly. The one is long and narrow, the face very broad, flat, and lozenge-shaped, and decidedly prognathous; the other is globular, swelling out posteriorly, while the face is broad, flat, and square. On the other hand, PRICHARD has very properly observed, that "the Mongolian race decidedly belongs to a variety of the human species, which is distinguished from Europeans by the shape of the skull."[141]

MORTON'S collection contains, also, a cast of the skull of a Burat Mongol,[142] in which the above characters are readily distinguished.

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[140] Table XIV. of the *Decades*.

[141] Nat. Hist. of Man, p. 214.

[142] The Bouriats, dwelling about Lake Baikal, manifest more aptitude for civilization than either the Kalmucks or the Mongols proper. Tchihatcheff informs us that the Russian Government employs, in frontier service, several regiments of these people, who have been

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These characters agree perfectly with those represented in Tab. XXIX. of the *Decades*, and in FISCHER'S *Osteological Dissertation.*[143] The descriptions, given by travellers, of the Mongolic physiognomy, correspond very well with the foregoing observations upon the cranium.

"The Mongols and Bouriats have so great a resemblance to them" (the Kalmucks), says PALLAS, "both in their physiognomy, and in their manners and moral economy, that whatever is related of one of these nations will apply as well to the others. . . . . The characteristic traits in all the countenances of the Kalmucks, are eyes, of which the great angle, placed obliquely and downwards towards the nose, is but little open and fleshy; eyebrows black, scanty, and forming a low arch; a particular conformation of the nose, which is generally short, and flattened towards the forehead; the bones of the cheek high; the head and face very round. They have also the transparent cornea of the eye very brown; lips thick and fleshy; the chin short; the teeth very white: they preserve them fine and sound until old age. They have all enormous ears, rather detached from the head."[144]

Between the Caspian Sea on the west, and the Great Altai Mountains on the east, and between the parallel of Tobolsk on the north, and the head-waters of the Oxus on the south, lies a country, whose physical aspects are not more interesting to the geologist and the physical geographer, than are its human inhabitants to the ethnographer. In this region we are called upon to study an extensive steppe, intersected with lofty mountains, among which are the feeding springs of many large rivers. Over this steppe, and among these mountains, have wandered, from the remotest times, a distinct and peculiar type of people, who have played a most important part in the history of the world — a people who had established, centuries ago, a vast empire in the heart of Asia, having China for its eastern, and the Caspian Sea for its western border, and who, when pressed towards the south-west by their nomadic neighbors, the Mongols, in their turn fell, with devastating fury, upon Europe, and long held its eastern portions in subjection. I allude to the Turkish family, whose history would be replete with interest, even if it offered us but the single fact, that the Turks, like the Goths of Europe and the Barbarian Tribes of North America — races occupying, in their respective countries, about the same parallels of latitude — were selected at a former period, to break in upon the high, but at that time lethargic, civilization of a more southern clime. "In the Yakut country we find the most intense cold known in Asia; in Pamer the greatest elevation above the sea-level; in the south of Egypt, an inter-tropical degree of heat. Yet in all these countries we find the Turk."[145]

well organized and disciplined after the European system. See his *Voyage dans l'Altaï orientale*, p. 190.

[143] Dissertatio Osteologica de Modo quo Ossa se vicinis accommodant Partibus. Ludg. Bat. 1713, 4to., tab. 1.

[144] Quoted from Prichard, op. cit., p. 215.

[145] Latham, op. cit., p. 77.

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It is while studying the physical characters of this interesting people, that the cranioscopist, in view of the little attention which his favorite science has received, and the scanty materials, therefore, by which he is guided, is forced to exclaim, in the language of St. Augustine, "Mirantur homines altitudines montium, ingentes fluctus maris, altissimos lapsus fluminum et oceani ambitum et gyros siderum et relinquunt se ipsos, nec mirantur."

Much discrepancy of opinion exists with regard to the origin, homogeneity, and characteristic physical conformation of the Turkish family. In consequence of the application of the term Tartar, their origin has been assigned to the tribes of Lake Bouyir, in East Mongolia. Remusat, Klaporth, and Ritter regard them as descendants of the Hiong-Nu, who, prior to the Christian Era, threatened to overrun and subjugate China with their mighty hordes. Prichard is inclined to consider this opinion unquestionable.[146] D'Omalius D'Halloy classifies them along with the Finns and Magyars, as descendants or representatives of the ancient Scythæ.[147] Latham makes a remark which evinces a concurrence of opinion—"A large, perhaps a *very* large portion of the Scythæ must have been Turk; and if so, it is amongst the Turks that we must look for some of the wildest and fiercest of ancient conquerors." On a preceding page he observes, "Practically, I consider that the Mongoliform physiognomy is the rule with the Turk, rather than the exception, and that the Turk of Turkey exhibits the exceptional character of his family."[148]

Much of this difference of opinion appears to result from the notable fact that, in traversing the Turkish area, we encounter different types of countenance and of physical conformation generally. In the absence of an adequate collection of crania representing the numerous tribes composing this family — which collection would be of the greatest utility in deciding this mooted point — we are forced to adopt, by way of explanation, one or other of the three following suppositions:—Either the typical Mongolian of Eastern Asia passes, by certain natural transitionary forms, — displayed by the tribes of Turkish Asia—into the European type; or, the Turk once possessed a peculiar form, standing midway between that of the European and Mongol, the intervening sub-types or forms having resulted from a double amalgamation on the part of the Turk; or, lastly, we must recognise in the Mongolian form a primitive type, which, by amalgamation with the European, has begotten the Turk. The second of these propositions appears to me the most tenable. However, as Dr. Morton's collection contains no skulls of the Turkish tribes, I

[146] Nat. Hist. of Man, p. 209.
[147] Des Races Humaines, p. 83.
[148] Varieties of Man, pp. 78–9.

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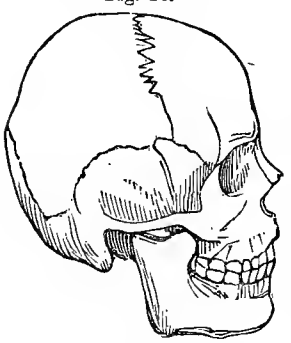
have not the necessary data to arrive at a positive conclusion as to the existence of a primary and peculiar cranial type among the Turks. Nevertheless, if the reader will carefully inspect the accompanying figure of a Turkish cranium in the Blumenbachian collection, and compare it with our Kalmuck standard, I deem it highly probable that he will with me recognize for the Turkish region a sub-typical form, which, though closely related to the Mongolic, differs from it mainly in possessing a more oval face, and a more decidedly globular skull. BLUMENBACH thus describes the head in his possession:

Fig. 16.



TURK.

"The cranium is nearly globular; the foramen magnum is placed almost at the posterior end of the basis cranii, so that there seems to be no occiput; the forehead broad; the glabella prominent; the malar fossæ gently depressed, and the proportions of the face, upon the whole, symmetrical and elegant. The external occipital protuberance is but little developed; the occipital condyles very large and convex; the alveolar edge of the superior maxilla very short, so that just beneath the nose it scarcely equals in height the breadth of the little finger."

Judging from the accounts of travellers, it would seem that among the most Eastern of the Turkish races, such as the Kirghis of Balkash and the irreclaimable nomades of the dreary plains of Turkistan, the Mongolic physiognomy more especially predominates. This, it will be recollected, is the region in which the Mongols proper and the Turks meet and overlap. The skull of a Kirghis, figured by BLUMENBACH (Tab. XIII.) furnishes a good exemplification of the cranial form of this region. In a Don Cossack (Tab. IV.) the Mongolian tendency is equally manifest. The Yakuts of the Lena, before described, and the Nojai Tartars (judging from a figure in HAMILTON SMITH'S work), also belong to this type.[149] South of the Kirghis are the Uzbecks, who, according to Lieut. Wood, resemble the former, but are better proportioned. The reader will obtain some general idea of the points of resemblance and difference between the Uzbecks and their Eastern conquerors, by referring to the portrait of Sjah Mierza, an Uzbeck Tartar, in the "Ethnographic Tableau" illustrating Mr. GLIDDON'S Chapter VI.

Through the skulls of the Osmanli Turks and the Tartars of the Kasan — especially the latter — the Turkish head proper graduates

[149] Op. cit., plate 9, fig. 2.

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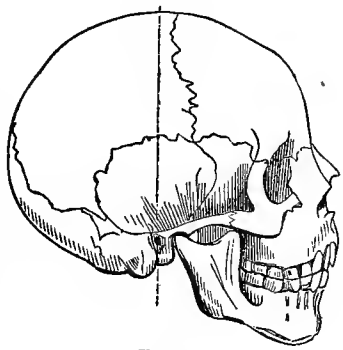
into the European form. Both these tribes are among the most anciently civilized of the race. The high European forms so often seen among the Osmanlis are no longer problematic. A knowledge of the heterogeneous additions accepted by their Seldjukian ancestors, and already referred to in sufficient detail, has served not a little to dissipate the mystery attached to this subject. Of the genealogical impurity of the Turks I think there can be but little doubt. Their indiscriminate amalgamations are thus briefly hinted at by D'HALLOY:

Fig. 17.



TARTAR.

"Il paraît," says he, "d'après les portraits d'anciens peuples turcs, que l'on a trouvés dans les historiens chinois, que ces peuples avaient originairement des cheveux roussâtres, et que leurs yeux étaient d'un gris verdâtre; mais ces caractères se sont perdus, et maintenant on remarque que les Turcs qui habitent au nord-est du Caucase, participent plus ou moins des caractères des Mongols, et que ceux établis au sud-ouest présentent les formes de la race blanche d'une manière trés-prononcée, mais avec des cheveux et des yeux noirs; circonstances qui s'expliquent par le mélange avec les Mongols pour les premiers, et par celui avec les Perses et les Araméens pour les seconds, d'autant plus que les Turcs, qui sont généralement polygames, ont beaucoup de goût pour les femmes étrangères." [150]

Quite recently, Major ALEXANDER CUNNINGHAM, of the Bengal Engineers, has given us an excellent account of the physical characters of the Bhotiyahs, an interesting race occupying a considerable portion of Thibet and the Himálayan range of mountains.

"The face of the Boti," says he, "is broad, flat, and square, with high cheek-bones, large mouth, and narrow forehead. The nose is broad and flat, and generally much turned up, with wide nostrils, and with little or no bridge. The eyes are small and narrrow, and the upper eyelids usually have a peculiar and angular form that is especially ugly. The eyes are nearly always black; but brown, and even blue eyes, are seen occasionally. The inner corners are drawn downwards by the tension of the skin over the large cheek-bones; the eyelids are therefore not in one straight line, parallel to the mouth, as is the case with Europeans, but their lines meet in a highly obtuse angle pointing downwards. This gives an appearance of obliquity to the eyes themselves that is very disagreeable. The ears are prominent, very large, and very thick; they have also particularly long lobes, and are altogether about one-half larger than those of Europeans. The mouth is large, with full and somewhat prominent lips. The hair is black, coarse, and thick, and usually straight and crisp. Bushy heads of hair are sometimes seen, but I believe that the frizzly appearance is not due even in part to any natural tendency to curl, but solely to the tangled and thickly agglomerated matting of the hair consequent upon its never having been combed or washed from first to second childhood." [151]

[150] Op. cit., pp. 89, 90.

[151] Ladák, Physical, Statistical, and Historical, with Notices of the Surrounding Countries, London, 1854, p. 296.

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A Pénjúr of Lhassa is thus described by HODGSON:

"—— Face moderately large, sub-ovoid, widest between angles of jaws, less between cheek-bones, which are prominent, but not very. Forehead rather low, and narrowing somewhat upwards; narrowed also transversely, and much less wide than the back of the head. Frontal sinus large, and brows heavy. Hair of eye-brows and lashes sufficient; former not arched, but obliquely descendent towards the base of nose. Eyes of good size and shape, but the inner angle decidedly dipt, or inclined downwards, though the outer is not curved up. Iris a fine, deep, clear, chestnut-brown. Eyes wide apart, but well and distinctly separated by the basal ridge of nose, not well opened, cavity being filled with flesh. Nose sufficiently long, and well raised, even at base, straight, thick, and fleshy towards the end, with large wide nares, nearly round. Zygomæ large and salient, but moderately so. Angles of the jaws prominent, more so than zygomæ, and face widest below the ears. Mouth moderate, well-formed, with well-made, closed lips, hiding the fine, regular, and no way prominent teeth. Upper lip long. Chin rather small, round, well formed, not retiring. Vertical line of the face very good, not at all bulging at the mouth, nor retiring below, and not much above, but more so there towards the roots of the hair. Jaws large. Ears moderate, well made, and not starting from the head. Head well formed and round, but longer *à parte post* than *à parte ante*, or in the frontal region; which is somewhat contracted crosswise, and somewhat narrowed pyramidally upwards. . . . . Mongolian cast of features decided, but not extremely so; and expression intelligent and amiable."[152]

KLAPORTH has shown that a general resemblance prevails between the languages of the Turk, Mongolian, and Tungusian. The foregoing remarks upon the cranial characters of these people, are, to some extent, confirmatory of the slight affinity here supposed to be indicated. The Turk and Mongol, however, appear to me to be more related to each other than to the Tungusian, whose cranial conformation must rather be regarded as transitionary from the pyramidal type. Indeed, the Tungusian tribes seem to connect the Chinese with the frozen North; for, in a modified degree, the same differences which separate the true Hyperborean from the typical Mongol, also separate the Chinese from the latter. In other words, the Chinese nation, in the form of their heads, resembles the great Inuit family more than the Mongolian. This opinion is based upon the critical examination of eleven Chinese skulls, obtained from various sources, and now comprised in the Mortonian collection.

If we compare together the lateral or profile view of the Eskimo (Fig. 10) with that of a Chinese (No. 94 in Morton's collection—the head of "one of seventeen pirates who attacked and took the French ship 'Le Navigateur,' in the China Sea"), it will be seen that they both present the same long, narrow form, appearing as if laterally compressed. In both the temporal ridge mounts up towards the vertex, and in both a large surface is presented for the attachment of the temporal muscle. In both the forehead is recedent, and the occiput prominent. But, while in the Eskimo (and this is a charac-

[152] Journal of Asiatic Society of Bengal, vol. xvii., part 2, p. 222. See also Prichard's Nat. Hist. of Man, edited by EDWIN NORRIS, vol. I. p. 219.

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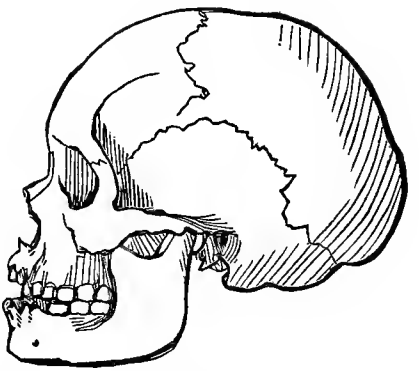
teristic feature) the greater portion of the malar surface looks anteriorly, thus giving the disproportionate sub-orbital breadth to the face; in the Chinese, on the contrary, I find that the greater portion of this surface looks laterally, the zygomatic arches not being separated so widely. Hence, the greatest transverse diameter of the base of the Chinese cranium does not fall in the anterior region between the zygomæ, as we have seen to be the case in the Eskimo cranium. It should be observed, moreover, that the jaw is more rounded and less massive in the latter than in the former. In the Chinese, the chin is more acuminated; but it is a curious fact that in both we have the same prognathous character of the upper jaw. When we compare the two facially, we become aware that they differ, not only in breadth of face, but also in that particular element which helps to give to the face of the Eskimo its diamond or lozenge shape. In this latter, the forehead is flat, narrow, and triangular; in the Chinese, a broader, less flat, and square forehead changes the character of the face, as is shown in all the specimens which I have examined, especially in Nos. 426 and 427 of Morton's collection. Other features equally interesting I might point out, but my space does not permit, and, moreover, I hope to be able to return to this inquiry in a future publication. On page 45 of the *Crania Americana*, I find the following description, from the pen of Dr. MORTON:

Fig. 18.



CHINESE (No. 94).

"The Chinese skull, so far as I can judge from the specimens that have come under my inspection, is oblong-oval in its general form; the os frontis is narrow in proportion to the width of the face, and the vertex is prominent: the occiput is moderately flattened;[153] the face projects more than in the Caucasian, giving an angle of about seventy-five degrees; the teeth are nearly vertical, in which respect they differ essentially from those of the Malay; and the orbits are of moderate dimensions and rounded."

BLANCHARD thus alludes to the Chinese cranium:

"Dans les crânes de Chinois,[154] la face vue par devant est allongée; elle n'a plus ces côtés parallèles que nous avons signalés dans les races océaniques, elle s'amincit graduellement vers le bas. Le coronal est large; mesuré dans sa plus grande éteudue, la largeur équivaut à peu près à la hauteur, prise de l'origine des os nasaux à sa jonction avec les

[153] This feature I cannot detect in any of the above-mentioned eleven skulls.

[154] Pl. 43 of Dumoutier's Atlas.

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pariétaux sur la ligne médiane. Observé par devant, on voit clairement, que sans affecter la forme vraiment pyramidale propre aux Polynésiens et un peu aux Malayo-Polynésiens, il se retrécit graduellement vers le sommet. Vu de profil, le front se montre en général assez rejeté en arrière. Le maxillaire supérieur est assez étroit et assez allongé; le maxillaire inférieur est également étroit, comparativement au développement de la portion supérieure de la tête. Les os maxillaires sont assez proéminents comme on peut s'en rendre compte aisément en considérant une tête de Chinois par le profil. La région occipitale s'étend peu en arrière. Ces caractères se voient nettement dans les têtes représentées par M. Dumoutier, et nous les avons retrouvés dans plusieurs sujets qui existent dans la collection anthropologique du Muséum d'histoire naturelle de Paris.

"Si nous comparons ces têtes de Chinois avec celles des habitants des Philippines,[155] les différences sont bien palpables, et pourtant il y a une grande analogie dans la forme générale, dans le contour coronal observé par devant. La face, chez les Chinois, est beaucoup plus allongée; le front, vu de profil, est moins oblique, ce qui donne nécessairement plus d'ampleur à la partie antéro-supérieure de la tête; les os maxillaires sont aussi sensiblement moins avancés; de là un angle facial un peu plus ouvert. Enfin, dans tous les cas, la partie postérieure de la tête est un peu moins allongée.

"De ces faits il resulté que la tête des Chinois, très-analogue sous bien des rapports à celle des Malais, en diffère d'une façon notable et se rapproche d'antant du type européen. Mais lorsq'on vient à mettre en présence les crânes de Chinois et d'Européens, c'est une différence bien autrement importante qui se manifeste devant des yeux exercés à ce genre d'étude. Un naturaliste de la Hollande, M. Vander Hœven, a déjà indiqué plusieurs différences dans les proportions du crâne.[156] Chez le Chinois, la face est plus longue que chez l'Européen,[157] l'angle facial est bien moins ouvert, le coronal déprimé, sauf une ligne courbe presque régulière de la base au sommet, tandis que dans la tête de l'Européen, le front est presque droit et forme presque un coude au sommet, pour aller rejoindre les pariétaux; tout cela, sans doute, avec des nuances bien prononcées, mais ce qui n'en est pas moins encore très-marqué, quand on compare des têtes d'hommes de races aussi différentes.

"En mettant en présence des têtes de Chinois et d'hommes de race sémitique, il y a un peu plus de rapport, plus de rapport surtout dans la longueur de la face. Chez les Juifs, les Arabes, etc., cependant, si le frontal est plus rejeté en arrière que chez les Européens, quand on le considère par devant, on voit qu'il reste large au sommet, au lieu de se rétrécir comme chez les Chinois. Dans les têtes de Chinois, les os nasaux sont moins saillants, les os maxillaires sont plus proéminents, la partie postérieure de la tête est moins oblongue.

"Enfin les Chinois, d'après tous les caractères anthropologiques que nous pouvons observer, se montrent dans le genre humain comme un type bien caractérisé et comme un type inférieur aux races européennes et sémitiques, ainsi que cela résulte d'un angle facial moins ouvert, d'une ampleur moins grande de la portion antéro-supérieure de la tête, et d'une saillie plus considérables des os maxillaires. Or comme il n'est pas douteux que l'ampleur de la partie antéro-supérieure de la tête ne soit un indice de supériorité, et le développement des os maxillaires un indice d'infériorité, l'anthropologiste doit classer la race chinoise comme inférieure aux races de l'Europe et de l'Orient. L'étude de l'histoire, des mœurs, des résultats intellectuels de ces peuples conduit absolument à la même classification."[158]

The Japanese are generally considered as belonging to the same type as the Chinese. The collection contains but one Japanese skull, presented by Dr. A. M. Lynch, U.S.N. The appearance of

[155] Pl. 40 of Dumoutier's Atlas.

[156] Annales des Sciences naturelles, 2e série.

[157] Dumoutier's Atlas, pl. 25, *bis*.

[158] Op. cit., pp. 228–34.

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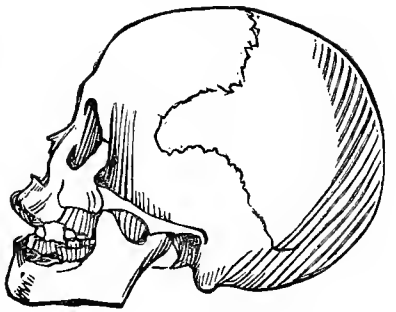
this cranium does not exactly comport with the above statement. Knowing nothing of its history, and having no other for comparison, I simply annex a representation of it without further comment.[159]

Fig. 19.



JAPANESE.

These observations, in the aggregate, conflict with the opinion of PRICHARD, — an opinion sustained by many others — that "the Chinese, and the Koreans, and the Japanese belong to the same type of the human species as the nations of High Asia." He explains away the evident differences by a certain softening and mitigation of the Mongolian traits. LATHAM also calls the Chinese a "Mongol softened down." Such expressions are unfortunate; they lead to misconceptions which often seriously retard the progress of science, particularly its diffusion among the masses.[160]

The Indo-Chinese nations, including the Mantchurian Tungus, or those south of the Alden, should be regarded as a distinct but closely allied type, a type bearing certain resemblances to the pyramidal form on the one hand, and the globular on the other, but positively separated from these two by certain slight but apparently constant differences.

The Koreans, judging from the description of SIEBOLD, exhibit the same type.

"L'ensemble de leurs traits perte, en général, le caractère de la race Mongole; la largeur et la rudesse de la figure, la proéminence des pommettes, le développement des machoires,

[159] "Les Japonais," says D'HALLOY, "ont en général les caractères mongoliques moins prononcées que les Chinois, ce que l'on attribue à un mélange avec d'autres peuple, peut-être des Kouriliens, qui auraient habité le pays avant eux." *Op. cit.*, p. 124.

[160] Upon p. 235 of his *Nat. Hist. of Man*, PRICHARD gives a profile view of a Chinese cranium, which, he says, "appears to differ but little from the European." Now if any one, at all familiar with European skull-forms, will take the trouble to inspect the figure in question, he will at once perceive how erroneous is the above statement. Every careful craniographer must object to such loose remarks. Again, upon the third and fourth plates of his work, he compares together the crania of a Congo negro, a Chetimache Indian of Louisiana, and a Chinese of Canton, and from the manifest resemblances between them, he ventures to assert that the characteristics of these widely-separated races cannot be relied upon as specific. In the Mortonian collection, so numerously represented in American and African skulls, and containing twelve Chinese crania, also, I cannot find a parallel instance of this similarity. I am forced to conclude, therefore, either that Dr. P. was mistaken as to the sources of these skulls, or that we should regard their similarity as one of those exceptional or aberrant examples, which occasionally arise to puzzle the cranioscopist in the present unsettled state of the science.

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la forme écrasée de la racine nasale et les ailes élargies du nez, la grandeur de la bouche, l'épaisseur des lèvres, l'apparente obliquité des yeux, la chevelure roide, abondante, d'un noir brunâtre ou tirant sur le roux, l'epaisseur des sourcils, la rareté de la barbe, et enfin un teint couleur de froment, rouge jaunâtre, les font reconnaître, au premier abord, pour des naturels du nord et de l'Asie. Ce type se retrouve chez la plupart des Coréens que nous avons vus, et ils conviennent eux mêmes que c'est celui qui distingue le mieux leur nation."

He proceeds to express his conviction of the co-existence of two distinct types in this region.

Of the tribes of the Trans-Gangetic or Indo-Chinese Peninsula, the Mortonian collection contains but one representative—a Cochin-Chinese from Turon Bay (No. 1527)—which appears to me artificially deformed. I am therefore unable, at present, to arrive at any determination of their cranial type. FINLAYSON describes these tribes in the following manner:

"The face is remarkably broad and flat; the cheek-bones prominent, large, spreading, and gently rounded; the glabellum is flat, and unusually large; the eyes are, in general, small; the aperture of the eyelids, moderately linear in the Indo-Chinese nations and the Malays, is acutely so in the Chinese, bending upwards at its outer end; the lower jaw is long, and remarkably full under the zygoma, so as to give to the countenance a square appearance; the nose is rather small than flat, the alæ not being distended in any uncommon degree; in a great number of Malays, it is largest towards its point; the mouth is large, and the lips thick; the beard is remarkably scanty, consisting only of a few straggling hairs; the forehead, though broad in a lateral direction, is in general narrow, and the hairy scalp comes down very low. The head is peculiar; the antero-posterior diameter being uncommonly short, the general form is rather cylindrical; the occipital foramen is often placed so far back that from the crown to the nape of the neck is nearly a straight line. The top of the head is often very flat. The hair is thick, coarse, and lank; its color is always black."[161]

Dr. RUSCHENBERGER thus describes the Siamese:

"The forehead is narrow at the superior part, the face between the cheek-bones broad, and the chin is again narrow, so that the whole contour is rather lozenge-shaped than oval. The eyes are remarkable for the upper lid being extended below the under one at the corner next to the nose; but it is not elongated like that organ in the Chinese or Tartar races. The eyes are dark or black, and the white is dirty, or of a yellowish tint. The nostrils are broad, but the nose is not flattened, like that of the African. The mouth is not well formed, the lips projecting slightly; and it is always disfigured, according to our notions of beauty, by the universal and disgusting habit of chewing areca-nut. The hair is jet black, renitent and coarse, almost bristly, and is worn in a tuft on the top of the head, about four inches in diameter, the rest being shaved or clipped very close. A few scattering hairs, which scarcely merit the name of beard, grow upon the chin and upper lip, and these they customarily pluck out.

"The occipital portion of the head is nearly vertical, and, compared with the anterior and sincipital divisions, very small; and I remarked, what I have not seen in any other than in some ancient Peruvian skulls from Pachacamac, that the lateral halves of the head are not symmetrical. In the region of firmness the skull is very prominent; this is remarkably true of the talapoins."[162]

[161] Embassy to Siam and Hue, p. 230.

[162] A Voyage Round the World; including an Embassy to Muscat and Siam. By W. S. W Ruschenberger, M. D. Philada., 1838, p 299.

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NEAL (*Residence in the Kingdom of Siam*) assures us that the Siamese differ in their physical characters from all the surrounding nations.

According to MORTON, among the inhabitants of Cochin-China, or Annam, "the general form of the face is round, so that the two diameters are nearly equal. The forehead is short and broad, but the occipital portion of the head is more elongated than in the people of Siam. The chin is large and broad; the beard grisly and thin, the hair copious, coarse, and black; the nose small, but well-formed, and the lips moderately thick."

BLANCHARD alludes to the inhabitants of Malacca, and the forms of their crania, in the following terms:

"La population de Malacca, du reste, comme celle des îles de la Sonde, n'est pas homogène; il y en a une partie qui présente une civilisation analogue à celle des Malais; il y en a une autre, formée de tribus incultes, qui habite les forêts de l'intérieur du pays. Les têtes des naturels de Malacca représentées dans l'atlas de M. Dumoutier ne sauraient être rapprochées indifféremment de toutes celles que nous avons décrites des habitants de la Malaisie.

"Vues par devant, ce sont des faces courtes comme chez tous les peuples des races malaises. Mais ici il n'y a pas cette ampleur du coronal et des pariétaux que nous avons signalée chez le naturel d'Amboine, représenté dans notre atlas, ni chez le Bughis de Ouadjou, ni chez les naturels des Philippines.

"Chez nos individus de Malacca, l'on observe aussi un plus grand développement des os maxillaires, et l'on retrouve ainsi cette forme à côtes parallèles que nous avons vu si fréquemment dans les types précédemment décrits.

"M. Dumoutier a placé les têtes de naturels de Malacca sur la même planche que le naturel d'Amnoubang de l'île de Timor; nous ne croyons pas qu'il faille venir chercher ici une ressemblance bien grande. Dans la tête du Timorien, le front est plus bas et plus large vers le haut, la partie postérieure de la tête est plus allongée, les maxillaires sont plus avancés, etc.

"Ces hommes de Malacca ressemblent, au contraire, d'une manière frappante, au Bughis de l'État de Sidenring dont il a été question plus haut.

"C'est la même face, courte, avec le coronal étroit, peu élevé, rejeté en arrière, déprimé au-dessus des arcades sourcilières; seulement chez le Bughis il y a une tendance un peu plus marquée à la forme pyramidale. Les apophyses zygomatiques sont de même extrêmement saillantes; le maxillaire supérieur est large et court, sans l'être autant que chez le naturel de Célèbes, et le maxillaire inférieur est aussi fort large. Enfin chez les uns et les autres la région postérieure n'est que peu étendue en arrière.

"En résumé, il n'est pas douteux que le Bughis représenté dans l'atlas de M. Dumoutier et les individus de Malacca appartiennent à la même race. Le fait que nous constatons ici devient une grande preuve à l'appui de l'opinion très-répandue parmi les ethnographes que les Bughis sont les descendants d'individus originaires du continent. Ce qui jette toujours dans un grand embarras, c'est la diversité des types observés sur la plupart des points de la Malaisie et dans les divers endroits du continent indien."[163]

The above descriptions evidently lead to the recognition of several varieties or sub-types of cranial form in the Indo-Chinese Peninsula, some of which are more or less related to the predominating type of

[163] Op. cit., pp. 220–2.

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Central Asia, while others approximate the Malayan, and through these the Polynesian forms. Indo-China may therefore be regarded as the transitionary or debatable ground between Asia and Polynesia.

Concerning the skull-forms of the mysterious aboriginal tribes of this region, who here and there "crop out" above the prevailing type (the perplexing representatives of an earlier and perhaps primitive humanitarian epoch), I have nothing to say, being without the necessary material. Among these relics of a former time may be enumerated the savage Garo, or hill-tribes of South-west Assam, with their Negro characteristics; the savage blacks of the Andamman Isles; and certain wild tribes dwelling to the north of Ava, and differing from the dominant population in language, religion, and physical characters. These, in common with the Bheels and Govand tribes of Guzerat, the Puharrees of Central, the Cohatars of Southern, and the Jauts of Western India, all seem to be the remnants of a once powerful and widely-spread people.

Very few, if any, people are more varied in their physical characters than the great Indostanic Family. Conquest and amalgamation have disguised and altered its primitive types in a remarkable degree. Only here and there, in the mountainous regions, do we catch a glimpse of these types. A portion of the aborigines appear to have been of a dark or quite black complexion.

"In general, the face is oval, the nose straight or slightly aquiline, the mouth small, the teeth vertical and well-formed, and the chin rounded and generally dimpled. The eyes are black, bright, and expressive, the eyelashes long, and the brow thin and arched. The hair is long, black, and glossy, and the beard very thin. The head of the Hindoo is small in proportion to the body, elongated and narrow especially across the forehead, which is only moderately elevated." [164]

The collection contains in all forty-three crania of the Indostanic Race. Among these skulls, at least two types can be distinguished. 1st. The fair-skinned Ayras, a conquering race, speaking a Sanscrit dialect, and occupying Ayra-Varta, which extends from the Vindya to the Himalaya Mountains, and from the Bay of Bengal to the Indian Ocean, and comprises the Mahrattas, and other once powerful tribes, who have so boldly and obstinately resisted the English arms. These tribes are of Persian origin. They migrated to India, according to M. Guigniaut, as early as 3101 B. C. 2d. The Bengalee, represented by thirty-five skulls. Dr. Morton considers these small-statured, feeble-minded, and timid people as an aboriginal race upon whom a foreign language has been imposed.

Of the eight Ayra skulls in the collection, six are of the Brahmin

[164] Crania Americana, p. 32.

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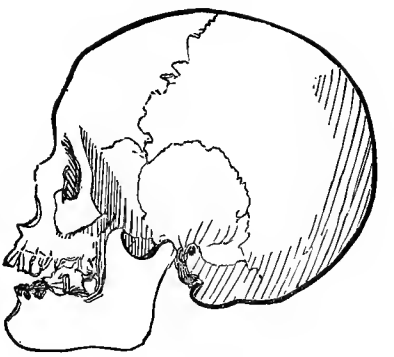
caste, and two are Thuggs. Fig. 20 — the skull of Sumboo-Sing, hanged at Calcutta for murder — very well represents this peculiar type. In the *Anthropologie* of Émile Blanchard, the reader will find an interesting comparison drawn between the Hindoo, Malay, and Micronesian forms of the cranium.

Fig. 20.



Hindu (1330).

I have already, in substance, expressed the opinion that the cranium of the Lapp, in point of conformation, must be regarded as constituting the connecting link between the types predominating in the Boreal Zone, and those encountered among the European or Indo-Germanic races. I have also ventured the opinion that, through the Osmanlis and the Khazan Tartars, the Mongolic form, characterizing the Asiatic realm, glided, by an easy transition, into the European. But Asia graduates into Europe still more naturally, perhaps, through the races constituting the widely-spread Finnic or Tchudic family, which, at an epoch antedating the earliest records, occupied the country extending from Norway to the Yennisei, north of the 55th degree of latitude in Asia, and the 60th in Europe. I have now to state that, through the Affghan skull, the Indostanic blends with the Semitic form. Thus, then, it appears that, in pursuing our cranial investigations, it is immaterial what route we take in passing from the Asiatic into the so-called European or Caucasian area. Whether we journey from Hindustan through Affghanistan, seeking the table-lands of Iran; or, setting out from the heart of Mongolia, traverse the Turkish region, and so enter Asia Minor; or, penetrate from the North-East into Scandinavia, through the intervening Lapps and Finns, we meet with the same result—a type which is, in general, as unlike that of the great region just surveyed, as are the animal and vegetable forms of these two countries.

The home of the so-called European, Caucasian, or White race, comprehends Europe, Africa north of the Saharan Desert, and South-Western Asia. This extensive region may, for convenience of study, be divided into four provinces, of which the first, extending from Finnmark southward into the heart of Europe, is occupied by the Teutonic, Gothic, or Scythic family; the second comprises Western and Southern Europe, and is inhabited by the Celtic family; the third, located in Eastern Europe, contains the great Shlavic group;

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while the fourth, or Africo-Asiatic, extends along the southern shore of the Mediterranean into Asia, as far east as Affghanistan, and is occupied by the expansive Semitic family. A closer and more critical examination of these four divisions compels us to recognise for each a number of minor areas or limited districts, which, while they bear to each other a general family likeness, are also characterized by floral and faunal peculiarities, in harmony with certain cranial distinctions about to be noticed.

When to the increasing number of naturally sub-typical forms are added the innumerable hybrid varieties resulting from the extensive migrations and endless intermixtures which, from remote times, have been going on in this region, it becomes evident that any attempt at a successful generalization of these forms must necessarily be attended with much difficulty. To grasp the idea of a European type is one thing; to select from a number of skulls one which shall embody the essentials of this idea, so as to serve for a standard, is quite another.

In the consideration of European types, I commence with the Finns.

Attempts have been made to associate the Ugrian family, in point of origin, with the nomadic races of Central Asia. But historically, no proof can be adduced that they ever dwelt as a body upon the plateaux of this latter region. They are not true nomades; and, as far as I can learn, differ in physical characters from their neighbors. The only support to the opinion is a certain affinity of language. Anciently the Ugrian area extended from the Baltic into Trans-Uralian Siberia. The western extremity penetrated Europe, and was inhabited by the True Finns, whose relation to the Lapps I have already briefly alluded to. The eastern extremity mainly comprised the Ugrians or Jugorians. Between the two dwelt the Tchudæ proper. LATHAM is disposed to bring the Samoiedes, Yenniseians, and Yukahiri into this area, thus carrying the Ugrians nearly to Bhering's Strait, and almost in contact with the Eskimo.[165] Anatomical characters not to be slighted, not to be explained away, are, however, against the attempt.

Through the kindness of Prof. RETZIUS, of Stockholm, the Mortonian collection has been lately increased by the addition of nine specimens of the true Finnic stock. Of these heads, I find the largest internal capacity is 112·5, the smallest 81·5, and the mean, 95·3 cubic inches. From an examination of these skulls, the following brief description is derived: The regularly developed head has a square or

[165] The Native Races of the Russian Empire. By R. G. Latham, M. D., &c., being vol. II. of the Ethnographical Library, conducted by E. Norris, Esq. London, 1854, pp. 12, 13.

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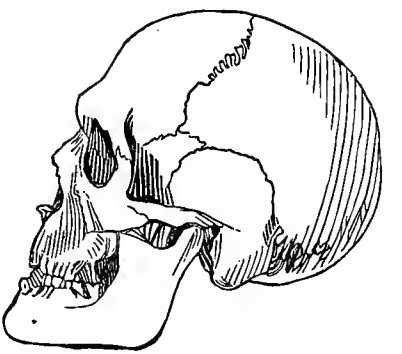
somewhat angularly round appearance. The antero-posterior diameter being comparatively short, it falls within the brachy-cephalic class of Retzius. The forehead is broad, though less expansive than in the true Germanic race. This frontal breadth, the lateral expansion of the parietalia, and the flatness of the os occipitis, give to the coronal region, when viewed perpendicularly, a square, or rather slightly oblong appearance. The face is longer and less broad than in the Mongolian head, while the lower jaw is larger, and the chin more prominent. Hence, the lower part of the face is advanced, somewhat in the manner of the Sclavonian face. The whole head is rather massive and rude in structure, the bony prominences being strongly characterized, and the sutures well defined. The general configuration of the head is European, bearing certain resemblances, however, to the Mongolian on the one hand, and the Sclavonian on the other.

Fig. 21.



Finn (1537).

I have already alluded to the great diversity of opinion relative to the affiliations of the Finns, and the position to which they should be assigned in ethnic classification. Malte-Brun distinguishes them from both the Sclavonians and Germans, but associates them with the Lapps.[166] Pinkerton coincides in this view, but is inclined to consider the Lapps a peculiar variety.[167] Burdach classes the Finns with the Sclaves and Lapps.[168] Bory de St. Vincent considers the Lapps, Samoiedes, and Tchuktchi as Hyperboreans, and recognizes in the Finns a variety of the Sclavonic race.[169] Hueck regards the Finns as a distinct people, differing from both the European and Mongolian families.[170] "The Fin organization," writes Latham, "has generally been recognized as Mongol—though Mongol of the modified kind."[171] The original identity of the Finns and Lapps has been argued from certain linguistic affinities between the two races. Prichard considers the evidence of their consan-

[166] System of Universal Geography. Edinburgh, 1827. Vol. VI. p. 75.

[167] Modern Geography. Philadelphia, 1804, Vol. I. pp. 383, 404. Walckenaer, the French translator and editor of this work, draws a strong line of distinction between the Finns and Lapps. *Géographie Moderne.* Paris, 1804, t. 3ème, p. 258, note.

[168] Der Mensch, cited by Hueck.

[169] L'Homme, Essai Zoologique sur le Genre Humaine. 3e edit., t. 1.

[170] De Craniis Estonum, p. 11.

[171] Native Races of the Russian Empire, p. 72.

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guinity to be sufficiently well demonstrated,[172] and cites LEEMIUS, GUNNERUS, PORTHAN, IHRE, RASK, and others as advocates of this opinion. Opposed to this identity, however, are the well-marked physical differences observed by nearly all the travellers who have visited these people. LINNÆUS, long ago, pointed out, in the concise terms of the naturalist, the most prominent of these differences. "Fennones corpore toroso, capillis flavis prolixis, oculorum iridibus fuscis. Lappones corpore parvo, capillis nigris, brevibus, rectis; oculorum iridibus nigrescentibus." Very ingenious theories have been advanced to reconcile this assumed consanguinity with the anatomical differentiæ above indicated. Thus VON BUCH ascribes this difference to the fact, that of the two people, the Finns alone use hot baths and warm clothing. Long separation and exposure to different physical influences have also been deemed sufficient to account for the discrepancy.

In consideration of the animated controversy which has been carried on by the learned concerning the relationship of the Lapp and the Finlander, it may be well to introduce here the carefully drawn description of an Esthonian skull, originally published in Latin by Dr. A. HUECK, of Dorpat.[173] There are reasons for considering the Finnic type to be preserved in its greatest purity among the Esthonians. These people appear to be the *indigenæ* of Esthonia; at least, "no earlier population seems to have preceded them."[174]

"In the Esthonian race," says Dr. H., "the skull, though angular, is not very robust. A square form is most frequently observed, and even when it passes into an oval shape, which is often the case, it presents a well-defined appearance of angularity. A pyramidal or wedge-like figure (*forma cuneata*) is more rarely encountered, and it has never happened to me to observe a round Esthonian skull.

"At first sight, the calvaria, when compared with the facial skeleton, appears large; and, if viewed from above or behind, square: for not only are the parietal bosses very prominent, but the occiput, in the region of the superior linea semicircularis, is strongly arched both posteriorly and towards the sides. The sinciput is a little less broad than the occiput; the forehead is plane, less gibbous than usual and low. The frontal breadth is only apparent, because the more projecting external orbitar process, with the equally prominent malar bones below, is continuous with the smoother posterior part of the semicircular line of the os frontis. The temporal fossa is capacious, though not very deep, and is terminated anteriorly by the firm posterior margin of the frontal process of the malar bone, and externally by a sufficiently strong zygomatic arch, under which juts out in the posterior side the articular tubercle or crest, by which the zygomatic arch is continued above the external opening of the ear. Moreover, the condyloid processes of the occipital bone appear to me larger and more prominent than in the other skulls. On the other hand,

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[172] Researches, iii., 297.

[173] De Craniis Estonum commentatio anthropologica qua viro illustrissimo Joanni Theodoro Busgh, doctoris dignitatem impetratam gratulatur Ordo. Med. Univers. Dorpatensis, interprete Dr. Alexander Hueck, Dorpati Livonorum, 1838, 4to., pp. 7–10.

[174] See Latham's Native Races of the Russian Empire, p. 75.

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the mastoid process, in all the (Esthonian) skulls which I have examined, is small and less rough; the Russian crania, on the contrary, excel in long and thick mastoid processes. Not more developed is the external occipital protuberance; nor in general are the impressions of the muscles very conspicuous on the occipital bone.

"Upon comparing the base of the skull, I have found no differences of greater moment. However, the internal occipital protuberance appears to me greater than usual; the crucial lines are strongly characterized, and the transverse furrows deeper. While the ossa petrosa project considerably into the cranial cavity, the os occipitale, where it forms the inferior occipital fossa, is less convex; hence, from this conformation, the space occupied by the cerebellum is manifestly narrowed. Nothing else is observable, except that the depressions in the anterior part of the cranium present a more angular form, and, finally, the jugular foramina appear to me larger than in the skulls of other races of men.

"The facial part, compared with the calvaria, is small, broad, and low. The breadth (of the face) is produced, not so much by the development of the malar bones, as in skulls of the Mongolian variety, but rather by a greater prominence of the malar process of the superior maxilla. On this account, the inter-malar, compared with the frontal, diameter, appears much greater than in Europeans in general. Hence, the external orbital margins are flared out more, the distance between these margins is greater than the breadth of forehead, and the orbits themselves are wider. Therefore, the malar process of the maxillary bone, being thus rendered more prominent, the antrum Highmorianum becomes necessarily more capacious. For a similar reason, the sphenoidal sinuses, also, are deeper than in German heads. And even the cells of the ethmoid are greater, and the paper-like lamina, which is ordinarily vertical, is rather arched in the Esthonians, and projects towards the orbit, blending gradually with the orbital surface of the body of the superior maxilla. The frontal sinuses are very large, which, in the external aspect, is indicated by a prominent glabella and projecting superciliary arches. . . . .

"The malar process of the upper maxilla is stronger than usual; on the other hand, the frontal and alveolar processes of the same bone are shorter; hence, the whole face, from the naso-frontal suture to the alveolar margin, is shortened in length. This broad and longitudinally contracted form of the face especially affects the form of the orbits, and gives to the skull of the Esthonians its most characteristic type. For, in comparison with their breadth, the orbits are low, and transversely oblong or almost square in shape. This appearance depends upon the above-mentioned proportions of the superior maxilla, and is the more noticeable, because the supra-orbital margin descends lower under a very convex superciliary arch, and is less curved in shape, while, opposite to it, the infra-orbital margin also makes a very prominent edge.[175] . . . . Antero-posteriorly, the orbit is somewhat deeper than in other skulls, and, on account of the contracted entrance (*humilem introitum*) appears to be deeper than it really is.

"The root of the nose, above which the glabella projects considerably, is compressed and flat, and the nasal bones, but little arched, terminate in a pyriform aperture. The frontal process of the upper maxillary bone being shorter, and the alveolar process lower, and, at the same time, the body of the upper maxillary bone less broad than usual, the space surrounded by the teeth is necessarily narrower. The incisor teeth of the upper jaw are seldom perpendicular, but incline obliquely forwards, so that their alveolar edge, not formed as in other crania, at the angle of the foramen incisivum, merges gradually into the hard palate. The peculiar evolution of the organs inservient to mastication, gives rise to differences even in the skull. For the whole surface of the temporal fossa is more exactly de-

[175] The prominence of the malar bones, the narrowness of the orbits, and the squareness of their margins, was also observed about Dorpat, by ISENFLAMM (*Anatomische Untersuchungen. Erlangen*, 1822, pp. 254–6). C. SEIDLITZ appears to have been the first to describe the form of the orbits accurately; he has attempted to show that this form gave rise to two affections, common in this region — trichiasis and entropium. (*Dissertatio Inauguralis de Præcipuis Oculorum Morbis inter Esthonos obviis Dorpati Livonorum*, 1821.)

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fined, not only by the semicircular line of the os frontis, but also by a very prominent crest above the external meatus, into the posterior part of which the zygomatic processes are continued. Moreover, in nearly all the Esthonian skulls, the external pterygoid processes are very broad; often the spinous process of the sphenoidal bone is, at the same time, so prolonged, that it coalesces with the posterior margin of the former process. . . . . This conformation indicates a greater evolution of the external pterygoid muscle than in others less broad. This muscle being efficient, the lateral motion of the lower jaw is increased, in consequence of the smallness of the condyles as compared with the large glenoid cavity; hence, the crowns of the teeth, already worn down in the young, are proofs of the possession of the most powerful organs for masticating vegetable food. It only remains to be observed that, in the lower jaw, the ascending ramus is lower than in skulls of the Caucasian variety, the angle more obtuse, and the posterior part of the body of the jaw less broad, and the anterior part higher, and the chin itself rounded, and rarely angular."

Such, according to Dr. HUECK, are the characters of the Esthonian skull — characters which, he further assures us, are more pronounced in proportion as these people are less mixed with others. He also expresses a belief in the possibility of tracing the Finns to their primitive sources, by a careful study of the heads found in ancient sepulchres of this region.

From the foregoing descriptions the reader will readily perceive the differences between the Finnic and Mongolic types of skull. The Mongolian face is broad and high, the cheek-bones very robust, the malar fossa shallow, the nasal bones small and flat, teeth strong and straightly placed, bounding a large space; the orbits are deep and less square. Oblique palpebral openings correspond to the formation of the facial bones, for the internal orbital process of the frontal bone descends more deeply than in the Caucasian variety, and the Esthonians especially, whence the lachrymal bone and the entrance to the canal are lower down. The internal canthus being adjacent to this, is placed lower; hence the obliquity of the palpebral opening, so peculiar to the Mongolian. We thus find nothing common to the Mongolian type and to the shape of the Esthonian skull except a certain squareness of figure which is not constant.

It will thus be seen that the cranial type of the Laplander belongs to a lower order than that of the Finn, and that the former race falls properly within the limits of the Arctic form, while the latter leans decidedly towards the Indo-Germanic type, finding its relation to the latter through the Sclavonian rather than the true Scandinavian types. But inferiority of form is to some extent a natural indication of priority of existence. We are thus led from cranial investigations alone to recognize the Lapps as the autochthones of Northwestern Europe, who at a very remote period have been overlaid by the encroaching Finn. This opinion is countenanced by the following facts. GEIJER assures us that the earliest historical accounts of

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the Lapps and Finns testify to their diversity and primitive separation. Under the combined pressure of the Swedes and Norwegians on the west, and the Finns on the east, the Lapponic area has, from the dawn of history, been a receding one. Lapponic names for places are found in Finland, and, as already observed, human bones more like those of the Laplanders than the Scandinavians have been found in ancient cemeteries as far south as Denmark. PETER HÖGSTROM tells us that the Lapps maintain that their ancestors formerly had possession of all Sweden. We have it upon historical record, that so late as the fifteenth century Lapponic tribes were pushed out of Savolax and East Bothnia towards the north.

Prof. S. NILSSON, of Lund, thinks that the southern parts of Sweden were formerly connected with Denmark and Germany, while the northern part of Scandinavia was covered with the sea; that Scania received its post-diluvian flora from Germany; and that as vegetation increased, graminivorous animals came from the south, followed by the carnivora, and finally by man, who lived in the time of the *Bos primigenius* and *Ursus Spelæus*. In proof of the antiquity here assigned to Scandinavian man, he tells us that they have in Lund a skeleton of the *Bos* pierced with an arrow, and another of the *Ursus*, which was found in a peat-bog in Scania, under a gravel or stone deposit, along with implements of the chase.[176] From these implements, he infers that these aborigines were a savage race of fishers and hunters.

"The skulls of the aboriginal inhabitants found in these ancient barrows are short (brachy-cephalic of Retzius), with prominent parietal tubers, and broad and flattened occiput. It is worthy of remark, that the same form of cranium exists among several very

[176] The reader will find some highly interesting and curious speculations upon the antiquity of British Man, in a paper entitled, *On the Claims of the Gigantic Irish Deer to be considered as contemporary with Man*, recently read (May, 1855), by Mr. H. DENNY, before the Geological and Polytechnic Society of the West Riding of Yorkshire. "In my endeavor to trace the Megaceros down to the human era," says Mr. D., in concluding his paper, "I am by no means advocating the idea that they have, as species, been equally long inhabitants of this earth. On the contrary, I suppose that the last stragglers *only*, which escaped annihilation by physical changes and causes, may have continued to exist down to Man's first appearance on the British Isles; and as precisely similar views regarding the extinction of the Dinornis in New Zealand have been advocated by Dr. Mantell in one of his last communications to the Geological Society, I shall make no apology in concluding with his remarks when speaking of the Moa-beds: — Both these ossiferous deposits, though but of yesterday in geological history, are of immense antiquity in relation to the human inhabitants of the country. I believe that ages, ere the advent of the Maoris, New Zealand was densely peopled by the stupendous hipeds whose fossil remains are the sole indications of their former existence. That the *last* of the species was exterminated by human agency, like the Dodo and Solitaire of the Mauritius, and the Gigantic Elk of Ireland, there can be no doubt; but, ere man began the work of destruction, it is not unphilosophical to assume that physical revolutions, inducing great changes in the relative distribution of the land

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ancient people, such as the Iberians or Basques of the Pyrenees, the Lapps and Samoiedes, and the Pelasgi, traces of whom are still found in Greece.

"Next in succession to this aboriginal race, subsisting by fishing and hunting, comes another with a cranium of a more lengthened oval form, and prominent and narrow occiput. I think this second race to have been of Gothic extraction, to have first commenced the division of the land for agricultural purposes, and consequently to have had bloody strife with the former inhabitants. . . . . .

"The third race which has inhabited Scandinavia came possibly from the North and East, and introduced bronze into the country; the form of the skull is very different from that of the two former races. It is larger than the first, and broader than the second, and withal prominent at the sides. I consider this race to have been of Celtic origin." The fourth, or true Swea race, introduced into Sweden weapons and instruments of iron, and appear to have been the immediate ancestors of the present Swedes. With this race Swedish history fairly begins.[177]

Prof. RETZIUS, in the main, coincides with the opinion of Prof. NILSSON. He applies to the Lapps the term Turanic, and regards them as the relics of the true Scandinavian aborigines — a people who once occupied not only the southern part of Sweden, but also Denmark, Great Britain, Northern Germany, and France. He calls the Turanic skull, brachy-cephalic (short-head), and describes it as short and round, the occiput flattened, and the parietal protuberances quite prominent.[178]

A cast of a Norwegian skull in the Mortonian Collection (No. 1260), is remarkable for its great size. It belongs to the dolichocephalic variety of RETZIUS. The fronto-parietal convexity is regular from side to side. The occipital region as a whole is quite prominent; but the basal portion of the occiput is flat and parallel with the horizon when the head rests squarely upon the lower jaw. The glabella, superciliary ridges, and external angular processes of the os frontis are very rough and prominent, overhanging the orbits and inter-orbital space in such a manner as to give a very harsh and forbidding expression to the face. The semi-circular ridges passing back from the external angular process, are quite elevated and sharp. The nasal bones are high and rather sharp at the line of junction; orbits capacious; malar bones of moderate size, and flattened antero-laterally; superior maxilla rather small in comparison with the inferior, which is quite large, and much flared out at the angles. The facial angle is good, and the whole head strongly marked.

According to Prof. RETZIUS, the Swedish cranium, as seen from above, presents an oval figure. Its greatest breadth is to its greatest

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and water in the South Pacific Ocean, may have so circumscribed the geographical limits of the Dinornis and Palapteryx, as to produce conditions that tended to diminish their numbers preparatory to their final annihilation."

[177] Report of the British Association for the Advancement of Science, for 1847, p. 31.

[178] See Müller's Archives, for 1849 p. 575.

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length as 1000 : 773. The external occipital protuberance is remarkably prominent, so that the external auditory meatus appears to occupy a more advanced position than is really the case. A plane passing through the two meati, perpendicular to the long diameter of the cranium, cuts this diameter nearly in the middle. The face is long, but not very prominent, the inferior jaw well pronounced and massive, while the inter-orbital space is large, as is generally the case with the Northern races of men. From the skulls found in ancient tombs, we may infer that this form has not varied for at least 1000 years.[179]

The Swedish form of skull, judging from the specimens in Morton's Collection, bears a family resemblance to the Norwegian, and in several respects is not unlike the Anglo-Saxon head figured in the first decade of *Crania Britannica*. In the Anglo-Saxon, however, the chin is more acuminated, and the maxillary rami longer. The chief points of resemblance about the calvaria, are the slightly elevated forehead, the rather flattened vertex, and the inclination of the parietalia downwards and backwards towards the occiput. This latter feature is also possessed by the Norwegian cast referred to above.

In the skull of a Swedish woman of the thirteenth century (No. 1249 of the Mortonian Collection), the singularly protuberant occiput projects far behind the foramen magnum. The skulls of an ancient Ostrogoth (No. 1255), and two ancient Cimbric Swedes (Nos. 1550 and 1532), evidently belong to the same peculiar type. These four heads resemble each other as strongly as they differ from the remaining Swedes, Finns, Germans, and Kelts in the Collection. They call to mind the kumbe-kephalæ, or boat-shaped skulls of Wilson. No. 1362, a cast of an ancient Cimbrian skull, from the Danish Island of Moen, presents the same elongated form. It differs from the four preceding skulls in being larger, more massive, and broader in the forehead.

Nos. 117, 1258, and 1488 possess the true Swedish form as described above.

Two Swedo-Finland skulls (Nos. 1545 and 1546) — marked in my manuscript catalogue as appertaining to "descendants of colonists who settled in Finland in the most remote times" — are broader, more angular, and less oval than the true Swedish form. The horizontal portion of the occiput is quite flat, and the occipital protuberance prominent.

Three Sudermanland Swedes have the same general form. Three Swedish Finns (mixed race) have a more squarely globular, and less

[179] Ueber die Schädelformen der Nordbewohner in Müller's Archiv., 1845.

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oval cranium than the true Swedes. In the skull of a Turanmic Swede (No. 121) the posterior region of the calvaria is broader, and does not slope away so much. In general configuration this cranium approaches the brachy-cephalic class of RETZIUS.

A Danish skull figured by NILSSON,[180] after ESCHRICHT, of Copen hagen, resembles the Lapponic much more than the Norwegian or Swedish forms described above.

The cranial types of Great Britain — the "islands set in the sea" — next claim our attention.

The ethnology of the British Isles appears to be very closely connected with that of Scandinavia. According to Prof. NILSSON, the ancient inhabitants of Britain are identical with those of Norway and Sweden.[181] Reference to the views put forth by different ethnographers and archeologues reveals to us a remarkable degree of uncertainty respecting the cranial forms and general physical characters of the primitive Britons.

"It seems strange," says Dr. PRICHARD, "that such a subject as the physical character of the Celtic race should have been made a theme of controversy. Yet this has happened, and the dispute has turned, not only on the question, what characteristic traits belonged to the ancient Celtæ, but, what are those of their descendants, the Welsh and the Scottish Gaël?"[182] Again, he says—"The skulls found in old burial-places in Britain, which I have been enabled to examine, differ materially from the Grecian model. The amplitude of the anterior parts of the cranium is very much less, giving a comparatively small space for the anterior lobes of the brain. In this particular, the ancient inhabitants of Britain appear to have differed very considerably from the present. The latter, either as the result of many ages of greater intellectual cultivation, or from some other cause, have, as I am persuaded, much more capacious brain-cases than their forefathers."[183] In another place, he asks—"Was there anything peculiar in the conformation of the head in the British and Gaulish races? I do not remember that any peculiarity of features has been observed by Roman writers in either Gauls or Britons. There are probably in existence sufficient means for deciding this inquiry, in the skulls found in old British cairns, or places of sepulture. I have seen about half-a-dozen skulls, found in different parts of England, in situations which rendered it highly probable that they belonged to ancient Britons. All these partook of one striking characteristic, viz., a remarkable narrowness of the forehead, compared with the occiput, giving a very small space for the anterior lobes of the brain, and allowing room for a large development of the posterior lobes. There are some modern English and Welsh heads to be seen of a similar form, but they are not numerous. It is to be hoped that such specimens of the craniology of our ancestors will not be suffered to fall into decay."[184]

The hope here expressed, I may say, *en passant*, has at length met with an able response, in the *Crania Britannica* of Messrs. DAVIS

[180] Skandinaviska Nordens Urinvånare, ett försök i comparativa Ethnographien af S. Nilsson, Phil. Dr., &c. Christianstad, 1838. I. Häftel, Plate D, Fig. 10.

[181] See his Letter to Dr. Davis, quoted in *Crania Britannica*, p. 17.

[182] Researches into the Physical History of Mankind, 3d edition, vol. III. London, 1841, p. 189.

[183] Ibid, 3d edit., vol. I., p. 305.

[184] Ibid, III., 199.

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and THURNAM, who have spiritedly undertaken to "rescue and perpetuate the faithful lineaments of a sufficient number of the skulls of the ancient races of Britain to preserve authentic data for the future."

Mr. WILDE, a distinguished antiquary, calls the primitive Irish—those who, in the remotest times, built the pyramidal sepulchres with stone passages — "globular-headed." The skulls found in the "Cromlechs," or sepulchral mounds of a later date, he assures us are "chiefly characterized by their extreme length from before backwards, or what is technically termed their antero-posterior diameter, and the flatness of their sides; and in this, and in most other respects, they correspond with the second form of head discovered in the Danish sepulchres." They also "present the same marked characters in their facial aspect, and the projecting occiput and prominent frontal sinuses, as the Danish" skulls. "The nose, in common with all the truly Irish heads I have examined, presents the most marked peculiarities, and evidently must have been very prominent, or what is usually termed aquiline. With this we have evidence of the teeth slightly projecting, and the chin square, well marked, and also prominent; so that, on the whole, this race must have possessed peculiarly well-marked features, and an intelligent physiognomy. The forehead is low, but not retreating. The molar teeth are remarkably ground down upon their crowns, and the attachments of the temporal muscles are exceedingly well marked. . . . . Now, we find similar conditions of head still existing among the modern inhabitants of this country, particularly beyond the Shannon, towards the west, where the dark or Fir-Bolg race may still be traced, as distinct from the more globular-headed, light-eyed, fair-haired Celtic people, who lie to the north-east of that river." In the "Kistaeven," a still later form of the ancient funereal receptacles, "the skull is much better proportioned, higher, more globular, and, in every respect, approaching more to the highest forms of the Indo-European variety of the Caucasian race."[185]

From these interesting researches of Mr. WILDE, it appears quite evident that Ireland has, at different and distant periods, been peopled by at least two, if not three, distinct races, of which the first was characterized by a short, and the second by an elongated form of skull; thus corresponding remarkably, in physical character and order of succession, to the early inhabitants of Scandinavia.

Prof. DANIEL WILSON, the learned general editor of the *Canadian Journal*, has recently demonstrated the existence in Scotland of two distinct primitive races, prior to the appearance of the true Celtæ. He thus refers to the crania of these ancient people:

"Fortunately, a few skulls from Scottish tumuli and cists are preserved in the Museums of the Scottish Antiquaries and of the Edinburgh Phrenological Society. A comparison of these with the specimens of crania drawn by Dr. Thurnam from examples found in an ancient tumular cemetery at Lamel Hill, near York, believed to be of the Anglo-Saxon period, abundantly proves an essential difference of races.[186] The latter, though belonging to the superior or dolicho-kephalic type, are small, very poorly developed, low and narrow in the forehead, and pyramidal in form. A striking feature of one type of crania from the Scottish barrows is a square compact form. . . . . .

[185] Lecture on the Ethnology of the Ancient Irish. By W. R. Wilde, 1844.

[186] Natural History of Man, p. 193.

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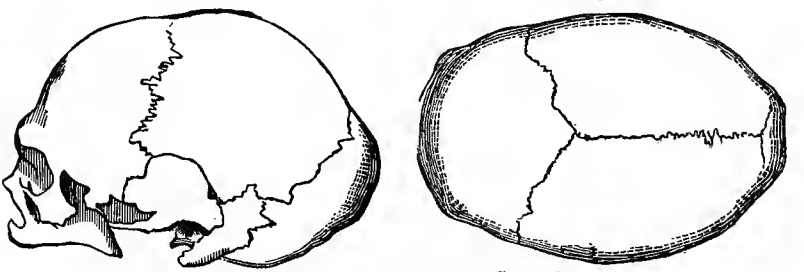
"No. 7 [Figs. 22 and 23] was obtained from a cist discovered under a large cairn at Nether Urquhart, Fifeshire, in 1835. An account of the opening of several cairns and

Fig. 22. Fig. 23.

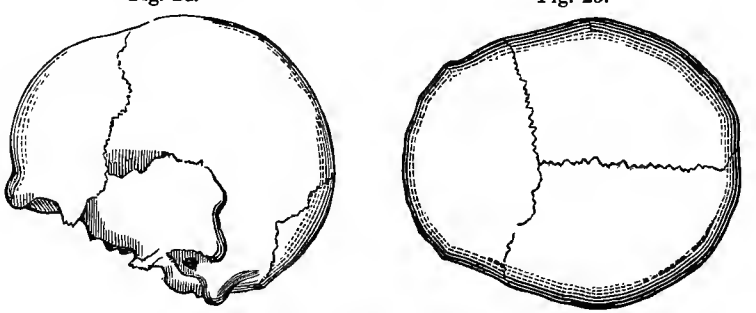


"No. 7. Nether Urquhart Cairn."

tumuli in the same district is given by Lieutenant-Colonel Miller, in his 'Inquiry respecting the Site of the Battle of Mons Grampius.'[187] Some of them contained urns and burnt bones, ornaments of jet and shale, and the like early relics, while in others were found implements or weapons of iron. It is selected here as another example of the same class of crania. . . . The whole of these, more or less, nearly agree with the lengthened oval form described by Prof. Nilsson as the second race of the Scandinavian tumuli. They have mostly a singularly narrow and elongated occiput; and with their comparatively low and narrow forehead, might not inaptly be described by the familiar term *boat-shaped*. It is probable that further investigation will establish this as the type of a primitive, if not of the primeval native race. Though they approach in form to a superior type, falling under the first or dolicho-kephalic class of Prof. Retzius's arrangement, their capacity is generally small, and their development, for the most part, poor; so that there is nothing in their cranial characteristics inconsistent with such evidence as seems to assign to them the rude arts and extremely limited knowledge of the British Stone Period. . . . . .

"The skull, of which the measurements are given in No. 10 [Figs. 24 and 25], is the same here referred to, presented to the Phrenological Museum by the Rev. Mr. Liddell. It

Fig. 24. Fig. 25.



"No. 10. Old Steeple, Montrose."

is a very striking example of the British brachy-kephalic type; square and compact in form, broad and short, but well balanced, and with a good frontal development. It no doubt pertained to some primitive chief, or arch-priest, sage, it may be, in council, and brave in war. The site of his place of sepulture has obviously been chosen for the same reasons which led to its selection at a later period for the erection of the belfry and beacon-

[187] Archæol., Vol. IV., pp. 43, 44.

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tower of the old burgh. It is the most elevated spot in the neighborhood, and here his cist had been laid, and the memorial mound piled over it, which doubtless remained untouched so long as his memory was cherished in the traditions of his people. . . . . .

"Few as these examples are, they will probably be found, on further investigation, to belong to a race entirely distinct from those previously described. They correspond very nearly to the brachy-kephalic crania of the supposed primeval race of Scandinavia, described by Prof. Nilsson as short, with prominent parietal tubers, and broad and flattened occiput. In frontal development, however, they are decidedly superior to the previous class of crania, and such evidence as we possess seems to point to a very different succession of races to that which Scandinavian ethnologists now recognize in the primitive history of the north of Europe. . . . . .

"So far as appears from the table of measurements, the following laws would seem to be indicated: — In the primitive or elongated dolicho-kephalic type, for which the distinctive title of kumbe-kephalic is here suggested — the parietal diameter is remarkably small, being frequently exceeded by the vertical diameter; in the second or brachy-kephalic class, the parietal diameter is the greater of the two; in the Celtic crania they are nearly equal; and in the medieval or true dolicho-kephalic heads, the parietal diameter is again found decidedly in excess; while the preponderance or deficiency of the longitudinal in its relative proportion to the other diameters, furnishes the most characteristic features referred to in the classification of the kumbe-kephalic, brachy-kephalic, Celtic, and dolicho-kephalic types. Not the least interesting indications which these results afford, both to the ethnologist and the archæologist, are the evidences of native primitive races in Scotland prior to the intrusion of the Celtæ; and also the probability of these races having succeeded each other in a different order from the primitive colonists of Scandinavia. Of the former fact, viz., the existence of primitive races prior to the Celtæ, I think no doubt can be now entertained. Of the order of their succession, and their exact share in the changes and progressive development of the native arts which the archæologist detects, we still stand in need of further proof. . . . . .

"The peculiar characteristic of the primeval Scottish type appears rather to be a narrow prolongation of the occiput in the region of the cerebellum, suggesting the term already applied to them of *boat-shaped*, and for which the name of *kumbe-kephalæ* may perhaps be conveniently employed to distinguish them from the higher type with which they are otherwise apt to be confounded. . . . . .

"The peculiarity in the teeth of certain classes of ancient crania above referred to is of very general application, and has been observed as common even among British sailors. The cause is obvious, resulting from the similarity of food in both cases. The old Briton of the Anglo-Roman period, and the Saxon both of England and the Scottish Lothians, had lived to a great extent on barley-bread, oaten cakes, parched peas, or the like fare, producing the same results on his teeth as the hard sea-biscuit does on those of the British sailor. Such, however, is not generally the case, and in no instance, indeed, to the same extent in the skulls found in the earlier British tumuli. In the Scottish examples described above, the teeth are mostly very perfect, and their crowns not at all worn down. . . . . .

"The inferences to be drawn from such a comparison are of considerable value in the indications they afford of the domestic habits and social life of a race, the last survivor of which has mouldered underneath his green tumulus, perchance for centuries before the era of our earliest authentic chronicles. As a means of comparison this characteristic appearance of the teeth manifestly furnishes one means of discriminating between an early and a still earlier, if not primeval period, and though not in itself conclusive, it may be found of considerable value when taken in connection with the other and still more obvious peculiarities of the crania of the earliest barrows. We perceive from it, at least, that a very decided change took place in the common food of the country, from the period when the native Briton of the primeval period pursued the chase with the flint lance and arrow, and the spear of deer's horn, to that comparatively recent period when the Saxon marauders

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began to effect settlements and build houses on the scenes where they had ravaged the villages of the older British natives. The first class, we may infer, attempted little cultivation of the soil. . . . . .

"Viewing Archæology as one of the most essential means for the elucidation of primitive history, it has been employed here chiefly in an attempt to trace out the annals of our country prior to that comparatively recent medieval period at which the boldest of our historians have heretofore ventured to begin. The researches of the ethnologist carry us back somewhat beyond that epoch, and confirm many of those conclusions, especially in relation to the close affinity between the native arts and Celtic races of Scotland and Ireland, at which we have arrived by means of archæological evidence. . . . But we have found from many independent sources of evidence, that the primeval history of Britain must be sought for in the annals of older races than the Celtæ, and in the remains of a people of whom we have as yet no reason to believe that any philological traces are discoverable, though they probably do exist mingled with later dialects, and especially in the topographical nomenclature, adopted and modified, but in all likelihood not entirely superseded by later colonists. With the earliest intelligible indices of that primeval colonization of the British Isles our archæological records begin, mingling their dim historic annals with the last giant traces of elder worlds; and, as an essentially independent element of historical research, they terminate at the point where the isolation of Scotland ceases by its being embraced into the unity of medieval Christendom."[188]

Mr. BATEMAN, who has carefully examined the ancient barrows of North Derbyshire, describes the skulls found in the oldest of these — known as the Chambered Barrows — as being elongated and boat-shaped (kumbe-kephalic form of Wilson). The crania of the succeeding two varieties of barrows are of the brachy-cephalic type, round and short, with prominent parietalia. In the barrows of the "iron age" — the most recent — he found the prevailing form to approximate the oval heads of the modern inhabitants of Derbyshire.[189]

From the foregoing statements, a remarkable fact becomes evident. While RETZIUS, NILSSON, ESCHRICHT, and WILDE are remarkably harmonious in ascribing the brachy-cephalic type to the earliest or Stone Period in Scandinavia, Denmark, and Ireland, we find WILSON and BATEMAN equally accordant in considering the kumbe-kephalæ as the first men who trod the virgin soil of Caledonia and England. In the present state of antiquarian research, then, we are forced to conclude that the primitive inhabitants of Britain are identical with those of Sweden and Denmark, but that in different parts of these countries the order of their sequence has varied.

Fig. 26 (see next page), reduced from a magnificent life-size lithograph in *Crania Britannica*, represents a strongly-marked aboriginal British skull of the earliest period. "It was disinterred from the lowermost cist of a bowl-shaped Barrow on Ballidon Moor." It

[188] The Archæology and Prehistoric Annals of Scotland; Edinb. 1851; pp. 163–187, 695–6.
[189] Journal of the British Archæological Society, vol. VII.

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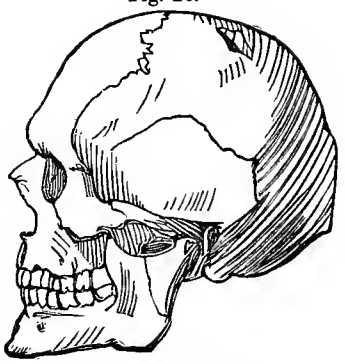
belongs to the brachy-cephalæ of Retzius, and is regarded by Dr. DAVIS, who gives us the following description of it, as a *typical* example of the ancient British form.

Fig. 26.

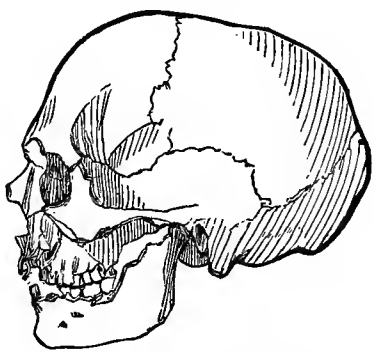


ANCIENT BRITON.

"This cranium possesses a rugged face, the bones of which are rough, angular, especially the lower jaw, and deeply impressed by strong muscular action. The space enclosed by the zygomatic arch is rather large. It is the skull of a man of probably about forty-five years of age. The teeth, which are not remarkably large, must have been complete at the period of interment, except the two last molars of the upper jaw on the left side, which had previously perished by caries, their alveoli being wholly absorbed. Some of the molars still retain a thick coating of tartar; and the teeth altogether indicate the severe service to which they were subjected during life, for the crowns of almost all are worn down to a level surface, by the mastication of hard substances. The nasal bones, which had been fractured obliquely across the centre during the life of this primitive hunter, possibly in some encounter of the chase, and had united perfectly, with a slight bend to the right, are very prominent. The opening of the nostrils, moderate in size, is just an inch in diameter. The frontal sinuses are large, and project considerably over the nose. The frontal bone is not particularly remarkable either for its arched or receding form, but inclines to the latter. The parietal bones are regular, and do not present much lateral prominency. The occipital is somewhat full above the protuberance, which itself is strongly marked. The point of the chin is hollowed out, or depressed, in the middle, a not uncommon feature of the British skull, which may perhaps be taken as an indication of a dimple, a mark of beauty in the other sex. The profile of the calvarium presents a pretty uniform curvature, interrupted by a slight rising in the middle of the parietal bones, and the occipital protuberance. The outline of the vertical aspect is a tolerably regular oval. The entire cranium is of moderate density. . . . Its most striking peculiarities are the rude character of the face, greatly heightened by the prominent frontal sinuses, and its moderate dimensions. It seems to have belonged to one whose struggle for life was severe, to conquer the denizens of the forest his chief skill, and whose food consisted of crude and coarse articles. Still there remain irrefragable evidences, even at this distant day, that his strife was a successful one, and that he became the lord of the wilderness"

An ancient British skull (Fig. 27), from a chambered tumulus at Uley, Gloucestershire, figured and described in *Crania Britannica*, affords a good idea of the dolicho-cephalic or long-headed form above referred to.

Fig. 27.



ANCIENT BRITISH (from Uley).

It "is the skull of a man of probably not less than sixty-five. The sutures are more or less grown together, and, in many places, completely obliterated. The cranium is of great thickness, especially in the upper part of the calvarium; the parietal bones, in the situation of the tubers,

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being about four-tenths of an inch in thickness, and the frontal bone, around the eminences, not less than half an inch. The skull is of large capacity, and is remarkable for its length in proportion to its breadth, belonging decidedly to the dolicho-cephalic class of Retzius. The form is slightly deficient in symmetry. The forehead is narrow, contracted, and rather receding, but not low; a sort of central ridge is to be traced along the summit of the cranium, which is most marked in front of the coronal suture, and falls away to a decidedly flat surface above each temporal ridge. The very pyramidal aspect thus given to the front view of the skull, is well shown in our figure. The parietal tubers are moderately prominent. The occiput is full, prominent and rounded, and presents a strongly-marked transverse ridge. The squamous and mastoid portions of the temporal bones are rather small; the external auditory openings are situated farther than usual within the posterior half of the skull. The frontal sinuses are very marked, and the glabella moderately prominent; the nasal bones, of moderate size, project rather abruptly. The insertions of the muscles of mastication are strongly marked, but neither the upper nor lower jaw is so large, rugged, or angular as is often the case in skulls from ancient British tumuli. The malar bones are rather small, and the zygomata, though long, are not particularly prominent. The ascending branch of the lower jaw forms a somewhat obtuse angle with the body of that bone; the chin is poorly developed; the alveolar processes are short and small. In both jaws, most of the incisor and canine teeth are wanting, but have evidently fallen out since death. The molars and several of the bicuspids remain in their sockets. All the teeth are remarkably worn down, and the molars, especially those of the lower jaw, have almost entirely lost their crowns; indeed, as respects the lower first molars, nothing but the fangs remain, round which abscesses had formed, leading to absorption and the formation of cavities in the alveolar process. The worn surfaces of the teeth are not flat and horizontal, but slope away obliquely, from without inwards, there being some tendency to concavity in the surfaces of the lower, and to convexity in those of the upper teeth. The former are more worn on the outer, the latter on the inner edge. Altogether, the condition is such as we must attribute to a rude people, subsisting in great measure on the products of the chase and other animal food—ill-provided with implements for its division, and bestowing little care on its preparation—rather than to an agricultural tribe, living chiefly on corn and fruits. Such, we have reason to believe, was the condition of the early British tribes.[190] The state of these, at least, contrasts decidedly with that observed in Anglo-Saxon crania, in which, though the crowns of the teeth are often much reduced by attrition, the worn surfaces are, for the most part, remarkably horizontal."

In the same work, the reader will find a well-executed lithograph of an Anglo-Saxon skull, which Dr. THURNAM is inclined to consider as belonging to the "lower rather than the upper rank of West Saxon settlers."

"The general form of the skull, viewed vertically," says Dr. T., "is an irregular lengthened oval, so that it belongs to the dolicho-cephalic class, but is not a well-marked example of that form. The general outline is smooth and gently undulating; the forehead is poorly developed, being narrow, and but moderately elevated. The parietal eminences are tolerably full and prominent. The temporal bones, and especially the mastoid processes, are small. The occipital bone is full and rounded, and has a considerable projection posteriorly. The frontal sinuses are slightly marked; the nasal bones small, narrow, and but little recurved. The bones of the face are small, the malar bones slightly prominent. The alveolar processes

[190] Cæsar's words are, "Interiores plerique frumenta non serunt, sed lacte et carne vivunt, pellibusque sunt vestiti." Lib. V., c. 14. Two or three centuries later, according to Dion Cassius, the condition of the northern Britons was similar; the Caledonians and Meatæ had still no ploughed lands, but lived by pasturage and the chase. Xiphilon, lib. xxv., c. 12.

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of the superior maxillary bones (*premaxillaries*) are prominent, and deviate so considerably from the upright form, as to place the skull rather in the prognathic than the orthognathic class. The ramus of the lower jaw forms an obtuse angle with the body of this bone. The chin is moderately full——."

The so-called Anglo-Saxon race—a term which, for several reasons, ought to be discarded from ethnological nomenclature—is represented in the Mortonian collection by four skulls. No. 80—the skull of an English convict, named Gwillym,—belongs to the dolicho-cephalic form, but is not strictly oval, being flattened posteriorly. In general configuration, it resembles the Northern or Gothic style of head. The face bears the Finnic stamp. No. 539—the skull of James Moran, an Englishman, executed at Philadelphia for piracy and murder—is long, flat on the top, and broad between the parietal bones. The posterior portion of the occiput is prominent, the basal surface is flat. The face resembles that of Nos. 1063 and 1064—Germans of Tubingen—while the calvaria approaches, in its general outline, the kumbe-kephalic form above alluded to. No. 991—an English soldier—belongs decidedly to the Cimbric type, briefly referred to on p. 291. No. 59—the skull of Pierce, a convict and cannibal—is long and strictly oval. It resembles the Cimbric type.

The Anglo-American Race—another very objectionable term, which, as applied to our heterogeneous population, means everything and nothing—has but eight representatives in Morton's collection. Nos. 7 and 98 possess the angularly-round Germanic form. No. 24—a woman, ætat. 26 years—is intermediate in form between the German and Swedish types. No. 552—a man, ætat. 30 years—resembles the Norwegian described on page 290. No. 889—a man, ætat. 40 years—resembles 552 in the shape of the calvaria, but has a smaller face and less massive lower jaw. No. 1108—a male skull—bears the Northern or Gothic form; the face resembles that of the Tubingen Germans.[191]

The Anglo-Saxon race, according to MORTON, differs from the Teutonic in having a less spheroidal and more decidedly oval cranium.

"I have not hitherto exerted myself to obtain crania of the Anglo-Saxon race, except in the instance of individuals who have been signalized by their crimes; and this number is too small to be of much importance in a generalization like the present. Yet, since these skulls have been procured without any reference to their size, it is remarkable that five give an average of 96 cubic inches for the bulk of the brain; the smallest head measuring 91, and the largest 105 cubic inches. It is necessary, however, to observe, that these are all male crania; but, on the other hand, they pertained to the lowest class of society; and three of them died on the gallows for the crime of murder."

[191] In arranging the Mortonian collection, I have excluded from the Anglo-Saxons the skull of a lunatic Englishman (No. 62); and from the Anglo-Americans, several skulls of lunatics, idiots, children, hydrocephalic cases, &c. This rule has been adopted throughout the whole collection.

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"The Anglo-Americans—the lineal descendants of the Anglo-Saxons—conform in all their characteristics to the parent stock. They possess, in common with their English ancestors, and in consequence of their amalgamation, a more elongated head[192] than the unmixed Germans. The few crania in my possession have, without exception, been derived from the lowest and least cultivated portion of the community — malefactors, paupers, and lunatics. The largest brain has been 97 cubic inches; the smallest 82; and the mean of 90 (nearly) accords with that of the collective Teutonic race. The sexes of these seven skulls are four male and three female."—(MORTON).

Craniographers have not yet agreed upon the essential characters of the typical Keltic skull. According to PRICHARD, "Some remains found in Britain give reason to suspect that the Celtic inhabitants of this country (Britain) had in early times something of the Mongolian or Turanian form of the head."[193] Dr. MORTON informs us that the Kelts of Brittany, Scotland, and Ireland—the descendants of the primitive Gaël—"have the head rather elongated, and the forehead narrow and but slightly arched: the brow is low, straight, and bushy; the eyes and hair are light, the nose and mouth large, and the cheek-bones high. The general contour of the face is angular, and the expression harsh."[194] In a letter to Mr. GLIDDON, he alludes to the Tokkari, a people frequently represented on the Egyptian monuments (Fig. 28), in the following terms: They "have strong *Celtic* features; as seen in the sharp face, the large and irregularly-formed nose, wide mouth, and a certain harshness of expression, which is characteristic of the same people in all their varied localities. Those who are familiar with the southern Highlanders (of Scotland), may recognise a speaking resemblance."[195] Prof. RETZIUS places the Keltic cranium in his dolichocephalic class, and describes it as long, narrow, laterally compressed, and low in the forehead. Dr. GUSTAF KOMBST speaks of the Keltic skull as "elongated from front to back, moderate in breadth and length."[196] In a letter to Dr. THURNAM, one of the authors of *Crania Britannica*, Prof. NILSSON declares that nothing is more uncertain and vague than the so-called form of the Keltic cranium, for hardly two authors have the same opinion of it.[197]

Fig. 28.

TOKKARI.

[192] "This peculiarity must continue to develop itself still more obviously in the United States, in consequence of the immense influx of a pure Celtic population from the south and west of Ireland; for this population, by intermarriage with families of English and German descent, while it rapidly loses its own national physiognomy, will leave its traces in a part, at least, of the Anglo-Saxon race by whom it is everywhere surrounded."

[193] Researches, &c., vol. III., p. XX.

[194] Crania Americana, p. 16.

[195] Letter dated Philada., Nov. 23, 1842.

[196] Keith Johnston's Physical Atlas.

[197] Crania Britannica, p. 17.

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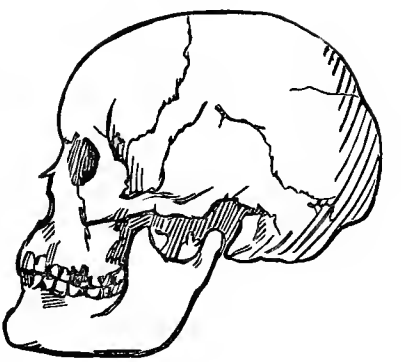
SERRES' *Galerie Anthropologique*, at Paris, contains a skull (Fig. 29) marked "Type Celte, — découvert dans l'ancien parc de Madame de Pompadour à Bellevue, pres Paris."

Fig. 29.



TYPE CELTE.

The discrepancy of opinion indicated in the preceding paragraph, results from the fact already stated, that Ireland has at different periods been the home of different and distinct races of men, whose history is recorded only on their mouldering osseous remains, and the rude implements with which these remains are generally found associated. These different races have transmitted, in varying degrees of purity, their respective and peculiar types of skull to the Irish population of the present day. To each and all of these types, the term "Keltic" has been applied; hence, the term has at length become synonymous with "Irish," and, therefore, lost all definite and certain meaning, just as the very comprehensive word "American," as applied to the heterogeneous population of the United States, means Dutch, English, Irish, French, Red Indians, &c., &c.

The Keltic race is represented in the Mortonian Collection by eight Irish heads, four skulls from the Parisian catacombs, and one from the field of Waterloo. No. 18 — a female Irish skull from the Abbey of Buttevant, County of Cork — has a form intermediate between the Cimbric and Swedish types, already described on page 291. In No. 21 — a soldier killed at the battle of Chippeway — the Gothic or Teutonic calvarial form is associated with a heavy, massive face. No. 42—the skull of an Irishman, ætat. 21, imprisoned for larceny, and in all respects a vicious and refractory character—approaches the square Germanic form. No. 52—from the Abbey of Buttevant—has the same form. No. 985—skull of an Irishman, ætat. 60 years—being rather broad between the parietal tubers, also approximates the Gothic type. The face resembles that of some of the Finns, but is smaller and less massive. No. 1186—an Irish cranium from Mayo County — belongs to the peculiar boat-shaped Cimbric type. No. 1356 — a cast of the skull of one of the ancient Celtic race of Ireland[198] — appears to me to be the most typical in the Irish group thus briefly enumerated. This head, the largest in the group, is

[198] This cast bears the following memorandum: "Descendant of an ancient Irish King, Alexander O'Connor. — Original in Dublin."

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very long, clumsy and massive in its general appearance. The forehead is low, broad, and ponderous; the occiput heavy and very protuberant; the basis cranii long, broad, and flat; the orbits capacious; and the distance from the root of the nose to the upper alveolus quite short. In its general form, it very much resembles the Cimbric skull, No. 1362. The Cimbric type, however, is somewhat narrower in the frontal region, and widens more posteriorly towards the parietal protuberances. In his work, cited above, Prof. NILSSON figures a massive, oblong head to which the Irish skull under consideration bears a considerable resemblance. A very heavy skull from the field of Waterloo (No. 1564) is strictly and beautifully oval. Of the four heads from the catacombs at Paris, three are decidedly brachy-cephalic, and one of the Germanic form.

Leaving Western Europe—the home of the Celtæ—and turning our steps towards the region of the old Hercynian Forest, and the sources of the Saale River, we meet with a type of skull which has figured pre-eminently in the momentous and stirring historical events of which Europe has been the arena. The Germanic, Gothic, or Teutonic skull which Tacitus regarded as indigenous to the heart of Europe, is briefly described by MORTON, as "large and spheroidal, the forehead broad and arched, the face round. . . ."[199] PRICHARD, after stating that we derive no information from the classical writers concerning the form of the head in the ancient Germans, says: "The modern Germans are well known to have large heads, with the anterior part of the cranium elevated and fully developed. They have this peculiarity of form in a greater degree than either the French or English."[200] VESALIUS observes, "that the Germans had generally a flattened occiput and broad head."[201] According to KOMBST, the Teutonic skull is larger and rounder than the Keltic. The head and face form a semi-circle, to which the small end of the oval is added, formed by the inter-maxillary region. The brow is broad, high, and massive.[202] Near the close of the *Decades*, BLUMENBACH figures a cranium found in an ancient tumulus near Romsted, in the district of Weimar, and which the poet-philosopher Gœthe supposed to be that of an ancient German. He unfortunately gives no description of it, but merely alludes to its symmetry and "frontem globosam et limbi alveolaris angustiorem arcum." VIMONT, in his chapter on *Têtes nationales*, speaks of the "capacité considérable,"

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[199] Crania Americana, p. 13.

[200] Researches into the Nat. Hist. of Man, iii. 393. [201] De Corp. Fab. Human.

[202] A. Keith Johnston's *Physical Atlas of Natural Phenomena*, 2d edit., p. 106.

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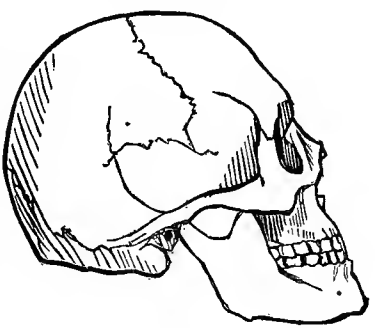
the thickness of the bones, and the great development of the upper and anterior parts of the German skull.[203] The reader will obtain a general idea of the Germanic *calvarial* type from the accompanying engraving (Fig. 30), representing the skull of the illustrious German poet, FREDERICK SCHILLER. It is reduced from Plate I. of Dr. CARUS' "Atlas der Cranioscopie."[204] The authenticity of the drawing, the evident beauty of form and harmony of proportion, the brilliant literary *souvenirs* inseparably attached to the memory of the author of the *Robbers*, and friend of Gœthe, and especially the somewhat Sclavonic cast of the facial region, have induced me to adopt this skull, in preference to any of the heads contained in Morton's Collection, as the standard or typical representative, not so much of Teutonic as of Central and Eastern Europe, in general. Dr. Carus thus comments upon this *Profil du Crâne de Frédéric de Schiller d'après un plâtre moulé:*

Fig. 30.



SCHILLER.

"Dans l'ensemble, la proportionnalité est, on ne peut plus heureuse et en parfaite harmonie avec les qualités d'un esprit éminent, lesquelles durent sous tous les rapports, placer Schiller à côté de Gœthe. Chacune de trois vertèbres du crâne se trouve dans l'état du développement le plus beau et le plus complet; la vertèbre médiane est particulièrement grande, gracieusemente voûtée, finement modelée. Le front est essentiellement plus développé en largeur que celui de Gœthe, chez qui cependant il était plus saillant au milieu. . . . L'occiput est également expressif, sans bosse ni protubérance; c'est surtout par une certaine formation élégamment arrondie de toute la tête que l'œil de l'observateur se sent agréablement captivé."

Of all the European crania in Morton's Collection, that of a Dutchman approximates most closely what I conceive to be the true Germanic or Teutonic form. This skull is remarkable for possessing the large internal capacity of 114 cubic inches — the largest in the entire collection. The calvaria is very large; the face rather small, delicate, well-formed, and tapering towards the chin. The frontal diameter or breadth between the temples, is $4\frac{1}{2}$ inches; the greatest breadth between the parietal protuberances is $6\frac{3}{8}$ inches; the antero-posterior or longitudinal diameter is $7\frac{5}{8}$ inches; the height, mea-

[203] Traité de Phrenologie, Humaine et Comparée. Par J. Vimont. Paris, 1835, ii. 478.

[204] Atlas der Cranioscopie, oder Abbildungen der Schædel- und Antlitzformen Beruehmter oder sonst merkwuerdiger Personen, von Dr. C. G. Carus. Heft. I. Leipzig, 1843. The plates are accompanied with German and French text.

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sured from the anterior edge of the foramen magnum, in a direct line to the sagittal suture, is $5\frac{11}{16}$ inches. A certain angularity or squareness of the frontal and posterior bi-parietal regions, gives to this head the Teutonic form. The posterior or occipital region is flat and broad, and presents to the eye a somewhat pentagonal outline. The temporal regions are full, the mastoid processes large, and the basis cranii nearly round. The outline of the coronal region resembles a triangle, truncated at the apex. This latter feature is also seen in one of the Finnic skulls (No. 1538).

Sixteen skulls represent the Suevic or Germanic race in Morton's Collection. The form of No. 37 — the skull of a German woman — is round. No. 1063 — a German of Tubingen — exhibits the square form very decidedly. The occiput is flattened; the face large and long. No. 1064 — also of Tubingen — has the Swedish or Northern, angular oval, a type distinct from the oval of Southern Europe, with which hasty observers are apt to confound it. It is a well-formed head, and in some respects resembles the Anglo-Saxon skull figured in *Crania Britannica*. No. 1188 — also of Tubingen — resembles the preceding skull. No. 1189 (Tubingen) bears the Swedo-Finnic type. Nos. 1191 — German of Frankfort — 1192 and 1193 — Prussians of Berlin — approximate the square form. Nos. 1187 (Frankfort), and 1065 (Prussian), present the Swedish type. No. 1066 (Prussian), is square, or angularly round.

It will thus be seen, from the foregoing observations on the crania of the races of Northern, Central, and Western Europe, that we must distinguish for these regions several distinct cranial types — a Lapponic, a Finnic, a Norwegian, a Swedish, a Cimbric, a Germanic, an Anglo-Saxon, a Keltic, &c.; that the modern Finn represents, in all probability, the ancient Tchudic or Scythic tribes; that the Norwegian and Swedish are varieties of the same type; that the Germanic form is intermediate between the Finn and Swede; that the Anglo-Saxon skull is allied to the Swedish, its facial portion bearing, to some extent, the Finnic stamp; that the Cimbric type is very ancient (more ancient, perhaps, than any of the forms just enumerated, except the Lapponic), resembles the kumbe-kephalic, and represents a primitive humanitarian epoch; that the Keltic type, if indeed any such exists, should be regarded as a variety of the Cimbric — a low and early form; and lastly, that the various types of skull to a certain extent approach, represent, and blend with each other in obedience to the great and, as yet, not properly understood law of gradation which seems to pervade and harmonize all natural forms, and in consequence, also, of the amalgamations which, within

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certain limits, must have accompanied the successive occupancy of this region by the races of men under consideration.

In the following Table, the reader will find these races compared together in relation to their cranial capacities.

TABLE III.

EUROPEAN CRANIA.

	Finns.		Swedes.		Germans.		Anglo-Saxons.		Anglo-Americans.		Kelts.		Cimbri.	
	No. in Catalogue.	*I. C.*	*No. in Catalogue.*	*I. C.*	*No. in Catalogue.*	*I. C.*	*No. in Catalogue.*	*I. C.*	*No. in Catalogue.*	*I. C.*	*No. in Catalogue.*	*I. C.*	*No. in Catalogue.*	*I. C.*
Male Skulls.	1534 1535 1636 1537 1538 1539 1540 1641	94.5 97.5 112.6 84.25 105. 81.5 88.5 99.	1486 1545 1546 1547 1548 1549	99 107.6 93.75 102. 94. 108.25	706 1063 1188 1189 1191 1187 434 1065 1066	94. 86. 85. 78. 95. 104. 114. 92. 80.	80 539 991 59	91 92 105 99	552 899 1108	97 91 95	21 42 52 985 1186 1564	93 97 82 93 77 87.5	1255 1532 1550	80 80 94
	Mean..	95.34		100.75		92.		96.75		94.33		88..25		84.66
Female Skulls.			1247 1487	85. 65.	1064 1062 1192 1193	91. 93. 82. 80.			7 24	83. 82.	18	78.	1249	83
	Mean of two Sexes.....			94.31		90.3				89.6		86.78		84.25

In the above Table, the reader will observe the high cranial capacities of the Swedes, Finns, and Germans; he will also perceive that the Anglo-Saxons and Anglo-Americans possess the same large average; while the mean for the Kelts and Cimbri is several inches less. It is a curious fact, that in the column marked "Kelts," Nos. 21, 42, 52, and 985 exhibit the Gothic type, as before mentioned (page 301), and have in general the high internal capacity of the Northern races; while Nos. 18, 1186, and 1564, which are of the Cimbric type, possess a lower internal capacity. The Table is not extensive enough to base upon this interesting fact any positive conclusion; but as far as this fact goes, it appears to me to confirm the suggestion already advanced, that the Cimbric and Keltic types of skull are closely allied, if not, indeed, identical.

As the observant traveller, coming from the west, approaches the banks of the Vistula, he becomes aware of some modifications of the cranial type just described, — modifications which call to his mind

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dim recollections of the Turk, the Tartar, and the Finn. In this region—the debatable ground upon which, from very remote periods, the Sclavonian and the German have overlapped and blended,—he encounters here and there certain transitionary forms, which prepare him for a change of type. Once beyond the Vistula and the Carpathians, in the country of the Wend, the Slovack, and the Magyar, he is called upon to study a form of head, whose geographical area—Sarmatia of the classical writers—extends from the region just indicated into central Asia, having the Great Uwalli for its northern, and the Euxine Sea and tribes of the Caucasus for its southern boundary. The dawn of history reveals this extensive tract occupied, as at the present day, by the Sclavonians, a great family, whom an able writer in the *North British Review*, for August, 1849, considers to be as much an aboriginal race of Eastern, as the Germans are of Central Europe.

According to PRICHARD, this great people, who appear to be an aboriginal European branch of the ancient Scythæ, "have the common type of the Indo-Atlantic nations in general, and of the Indo-European family to which it belongs."[205] M. EDWARDS thus minutely describes the Sclavonic type:

"The contour of the head, viewed in front, approaches nearly to a square; the height surpasses a little the breadth; the summit is sensibly flattened; and the direction of the jaw is horizontal. The length of the nose is less than the distance from its base to the chin; it is almost straight from the depression at its root, that is to say, without decided curvation; but, if appreciable, it is slightly concave, so that the end has a tendency to turn up; the inferior part is rather large, and the extremity rounded. The eyes, rather deep set, are perfectly on the same line; and when they have any particular character, they are smaller than the proportion of the head would seem to indicate. The eyebrows are thin, and very near the eyes, particularly at the internal angle; and from this point are often directed obliquely outwards. The mouth, which is not salient, has thin lips, and is much nearer to the nose than to the top of the chin. Another singular characteristic may be added, and which is very general; viz., their small beard, except on the upper lip. Such is the common type among the Poles, Silesians, Moravians, Bohemians, Sclavonic Hungarians, and it is very common among the Russians."[206]

According to Prof. RETZIUS, the Sclavonic cranium is of an oval form, truncated posteriorly. Its greatest length is to its greatest breadth as 1000 : 888. The external auditory meati are posterior to the plane passing through the middle of the longitudinal diameter. The face is exactly like that of the Swedes.

The Sclavonic Race is but poorly represented in the cranial collection of the Academy. Besides the cast of a Sclavonian head from Morlack, in Dalmatia, it contains only the head of a woman from Olmutz in Moravia. "I record this deficiency in my collection," wrote Dr. MORTON, a short time before his death, "in the hope that

[205] Researches into the Physical History of Mankind, iii., 442.

[206] Des Caractères Physiologiques des Races Humaines. Par W. F. Edwards, 1829.

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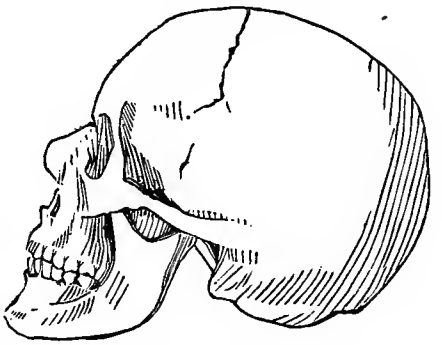
some person, interested in pursuits of this nature, may be induced to provide me with materials for making the requisite comparisons. My impression is, that the Sclavonian brain will prove much less voluminous than that of the Teutonic race."

The Olmutzian head above alluded to (Fig. 31) very well represents the skull-type of Eastern Europe. It presents the following characters: — General form of the head globular, though wanting in symmetry, in consequence of the posterior portion of the right parietal bone being more fully developed than the corresponding portion of the left; the calvaria quite large in proportion to the face, and broadest posteriorly between the parietal protuberances; the forehead is high, and moderately broad; the vertex presents a somewhat flattened appearance, in consequence of sloping downwards and backwards towards the occiput; the occipital region is also flat, and the breadth between the mastoid processes very great. The face is small and delicate, the nasal bones prominent, the orbits of moderate size, the malar bones flat and delicately rounded, and the zygomatic processes small and slender. The lower jaw is rather small, rounded at the angles, and quite acuminated at the symphysis. If classified according to its form, this head would find its placé near to, if not between, the Kalmuck and Turkish types.

Fig. 31.



SCLAVONIAN (1251).

Interlopers in the lands of the Slovack for 1000 years, and speaking a dialect of the Finnish language, the Magyars, or Hungarians, present us with ethnic peculiarities which, for several reasons, are worthy our close attention. Like the Yakuts of the Lena, they are a dislocated people. The displacements of the two races, however, have been in opposite directions. The physical characters, language, and traditions of the Yakuts indicate a more southern origin; the cranial type and language of the Magyar point to the North. EDWARDS thus briefly describes what may be called the Hungarian type, in contradistinction to the Slovack:

"Head nearly round, forehead little developed, low, and bending; the eyes placed obliquely, so that the external angle is elevated; the nose short and flat; mouth prominent and lips thick; neck very strong; so that the back of the head appears flat, forming almost a straight line with the nape; beard weak and scattering; stature small."[207]

[207] Op. cit.

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It is to be regretted that the Mortonian Collection contains not a single Hungarian skull. Well-drawn descriptions of the crania of this nation would, in all probability, settle at once and forever the long-disputed question of their origin. I may say, in passing, however, that the above description of EDWARDS rather tends to the supposition that the Hungarians are cognate with the Finns.

Upon the southern border of the lands of the Magyar we encounter the Wallachs, the probable descendants of the ancient Getæ or Dacians, and the only living representatives of the ancient Thracian race, whose area extended from the shores of the Mediterranean, northward beyond the Danube, and eastward into Asia Minor. Here the human type again varies, to such an extent, indeed, that PRICHARD speaks of the Wallachs as a people peculiar and distinct from all the other inhabitants of the countries on the Lower Danube.

"The common Wallach," he continues, "as we are informed by a late traveller, differs in a decided manner from the Magyar or Hungarian, as well as from the Slaves and Germans who inhabit the borders of Hungary. They are generally below the middle height, thin, and slightly built. Their features are often finely shaped, their noses arched, their eyes dark, their hair long, black, and wavy; their countenances are often expressive of cunning and timidity. They seldom display the dull heavy look of the Slovak, and still more rarely the proud carriage of the Magyar.

"Mr. Paget was struck by the resemblance which the present Wallachs bear to the sculptured figures of ancient Dacians to be seen on Trajan's Pillar, which are remarkable for long and flowing beards."[208]

In the Bulgarians of the southern banks of the Danube, and the Albanians of the Venetian Gulf, we discover still other types, differing alike from each other, and from the Wallachian. Like the Basques of the Pyrenees, the Bretons of France, and the Gaëls of Britain, the Albanians or Skippetars differ in language and physical characters from the races by which they are surrounded, and appear to be the remnant of a people who, if not identical with the mysterious and much-debated Pelasgi, were, in all probability, their cotemporaries. They differ decidedly from their Greek neighbors, being generally nearly six feet high, and strong and muscular in proportion "They have oval faces, large mustachios, a ruddy color in their cheeks, a brisk, animated eye, a well-proportioned mouth, and fine teeth. Their neck is long and thin, their chest broad; their legs are slender, with very little calf."[209]

Neither time nor space permits me, nor does the Mortonian Collection contain the cranial material necessary, to illustrate the

[208] Researches, &c., iii. p. 504. See, also, Paget's Travels in Hungary and Transylvania, vol. ii. p. 189, *et seq.* London, 1839. See *ante*, Pulszky's Chap., fig. 70, "Dacian."

[209] Poqueville cited by Prichard.

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numerous and diversified types of skull which are now, as in the most ancient times, found scattered through the Grecian, Italian, and Iberian peninsulas of Europe — in fact, all along the shores of the Mediterranean. Tribe after tribe, race after race, nation after nation, appear successively to have occupied the soil of Europe, playing out their allotted part in the great Life-drama, and then sinking quietly into the oblivion of the dim, mysterious, and eternal Past, whose only records are vague traditions, and strange linguistic forms — whose sole monuments are rude mounds, and mouldering humatile bones. Here and there, we are called upon to contemplate fragmentary and isolated communities, whose origin is lost in the night of time, and who for long ages have clung to a mountain range, to a valley, or a water-course, differing from the more modern but still ancient people about them, and slowly awaiting that annihilation which they instinctively feel is sure to come at last. As the Universe maintains its life and pristine vigor by an unending destruction, which is simply an incessant transmutation of its parts; and as the health of individual man is preserved by the ceaseless molecular death and metamorphosis of the tissues, so the Human Family — the huge body humanitarian — is kept alive and strong upon the globe by the decay and death, from time to time, of its ethnic members. If these passive, stagnating parts were allowed to accumulate, the death of the whole would be inevitable. Thus hoary Nature, establishing in death the hidden springs of other forms and modes of life, maintains herself ever young and vigorous, and through apparent evil incessantly engenders good.

It would be unpardonable, in this attempted survey of the cranial characteristics of the races of men, though ever so hurriedly made, if we omitted to notice the Greeks and Romans — respectively, the intellectual and physical masters of the world. In the Greek skull, we behold the emblem of exalted reason; in the Roman, that of unparalleled military prowess. Not alone in the matchless forms which the inspired chisel of a Phidias and a Praxiteles has left us, may we study the Grecian type. Among the Speziotes of the Archipelago, and in various localities through the Morea — the area of the ancient Hellenes — these marble figures still find their living representatives; thus attesting, at once the truthfulness of the artist, and the pertinacity with which nature ever clings to her typical forms. Nor need we resort to the Ducal Gallery at Florence, to obtain a correct idea of the Roman type, as embodied in the busts of the early Emperors of the Seven-hilled City. Travellers inform us, that this type, unchanged by the vicissitudes of time and circumstance,

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still lives and moves in the "Trasteverini," or mob population of the Tiber.

Dr. MORTON thus describes the Greek physiognomy:

"The forehead is high, expanded, and but little arched, so that it forms, with the straight and pointed nose, a nearly rectilinear outline. This conformation sometimes imparts an appearance of disproportion to the upper part of the face, which, however, is in a great measure counteracted by the largeness of the eye. The Greek face is a fine oval, and small in comparison to the voluminous head. The statues of the Olympian Jupiter, and the Apollo Belvidere (Fig. 32), convey an exact idea of the perfect Grecian countenance."[210]

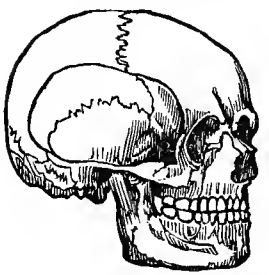
Fig. 32.

APOLLO BELVIDERE.

"In the Greek," says MARTIN, "the countenance has a more animated expression; the eyes are large; and the forehead advancing, produces a marked but elegant super-orbital margin, on which the eyebrows are delicately pencilled; the nose, falling straight from the forehead, sometimes inclines to an aquiline form, and is often of rather more than moderate length; the upper lip is short, and the mouth delicately moulded; the lower jaw is not so large as to disturb the oval contour of the face, and the chin is prominent; the general expression, with less of sternness than in the Roman, has equal daring, and betokens intellectual exaltation."[211]

BLUMENBACH describes a Greek skull — with one exception, the most beautiful head in his collection — in the following terms: "The form of the calvaria sub-globular; the forehead most nobly arched; the superior maxillary bones, just beneath the nasal aperture, joined in a plane almost perpendicular; the malar bones even, and sloping moderately downwards."[212] Fig. 33, borrowed from the first volume of Prichard's *Researches*, represents the skull of a Greek, named Constantine Demetriades, a native of Corfu, and for a long time a teacher of the Modern Greek language at Oxford.[213] The Mortonian Collection is indebted to Prof. RETZIUS for the cast of the skull of a young Greek, which in its general form and character very much resembles the above figure from Prichard. I find the calvaria well developed; the frontal region expansive and prominent; the facial line departs

Fig. 33.



GREEK

[210] Cran. Amer., p. 12.
[211] Man and Monkeys, p. 223.
[212] Decas Sexta, p. 6.
[213] Op. cit., p. xvii.

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but slightly from the perpendicular, and the facial angle consequently approaches a right angle. A small and regularly-formed face, devoid of asperities, harmonizes well with the general intellectual character of the head proper. The malar bones are small, flat, and smooth, with just enough lateral prominence to give to the face an oval outline; the alveolar margins of the maxillæ are regularly arched, and the teeth perpendicular.

Crossing the Gulf of Venice, we next encounter the Roman form of head — "a striking type," to use the language of Dr. WISEMAN, "essentially the same, from the wreathed image of Scipio's tomb, to Trajan or Vespasian, consisting in a large and flat head; a low and wide forehead; a face, in childhood, heavy and round — later, broad and square; a short and thick neck, and a stout and broad figure. Nor need we go far to find their descendants; they are to be found every day in the streets, principally among the burgesses, or middle class, the most invariable portion of any population."[214] BLUMENBACH presents us with the figure of the skull of a Roman prætorian soldier, and accompanies it with the following description:

"General form very fine and symmetrical; calvaria sub-globose, terminating anteriorly in a forehead elegantly smoothed; glabella and superciliary arches moderately prominent; nasal bones of a medium form, neither depressed nor aquiline; cheek-bones descending gently from the lower and outer margin of the orbits, not protuberant as in Negroes, nor broadly expanded as in Mongols; jaws with the alveolar arches and rows of teeth well-rounded; external occipital protuberance very broad and prominent."[215]

SANDIFORT figures a Roman skull, and speaks of the broad, smooth, and perpendicular forehead; the even vertex, rising at the posterior part; the lateral globosity, and general oblong form.[216] According to MORTON, "the Roman head differs from the Greek in having the forehead low and more arched, and the nose strongly aquiline, together with a marked depression of the nasal bones between the eyes."[217] MARTIN speaks of the Roman skull as well-formed, "the forehead remarkable rather for breadth than elevation; eyes moderately large; a raised and usually aquiline nose; full and firmly moulded lips; a large lower jaw, and a prominent chin, distinguish the Roman; and an expression in which pride, sternness, and daring are blended, complete the picture of 'broad-fronted Cæsar.'"[218] Dr. EDWARDS, after critically examining the busts of the early Emperors, thus describes the Roman type of head:

"The vertical diameter is short, and the face, consequently, broad. The flattened summit of the cranium, and the almost horizontal lower margin of the jaw, cause the contour

[214] Lectures on the Connection between Science and Revealed Religion, p. 152.
[215] Decades, 4to, p. 7.
[216] Tabulæ Craniorum diversarum Nationum, P. I.
[217] Crania Americana, p. 13.
[218] Man and Monkeys, p. 223.

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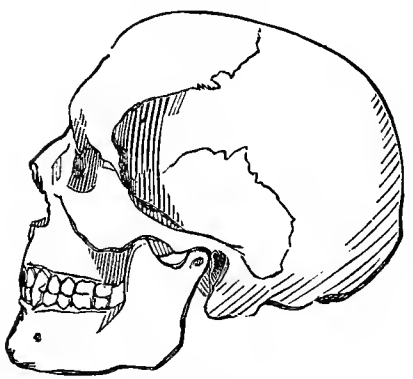
of the head, as viewed in front, to approximate decidedly to a square. The lateral parts above the ears are protuberant; the forehead low; the nose truly aquiline — the curvature beginning near the top and ending before reaching the point, the base being horizontal; the chin is round, and the stature short." [219]

Prof. RETZIUS describes, in the following terms, a "Schädel eines römischen Kriegers," taken from an ancient cemetery at York:

"This skull is very large, in length as well as in breadth, though of the dolicho-cephalic (Iranian) form. It is broader above towards the vertex, than below towards the base. The arch of its upper or coronal surface and the vertex are somewhat flat; the circumferenoe, seen from above, is a long, wedge-like oval, terminating posteriorly in a short, obtuse angle. Forehead broad, well arched, but rather low; superciliary ridges small; malar processes of the frontal bone small, not prominent; no frontal protuberances; temples rounded and projecting; parietal protuberances large, forming lateral angles in a posterior view, and standing far apart; the semi-circular temporal ridge elevated towards the vertex; occiput broad, rounded, the protuberance rather prominent; the sagittal suture slightly depressed, especially in the posterior part; receptaculum cerebelli large, &c." [220]

Dr. THURNAM figures and minutely describes, in *Crania Britannica*, the skull of Theodorianus, found in a Roman sarcophagus at York (the ancient Eburacum), erected probably during the third century of our æra. He informs us that this skull (Fig. 34) is a very fine example of the ancient Roman cranium; that it is unusually capacious, its dimensions being much above the average in almost every direction; that the forehead, though low, is remarkable for breadth; that the coronal surface presents an oval outline, and is notable for its great transverse diameter; that the parietal region is full and rounded; the temporal fossæ large; the mastoid processes unusually large, broad, and prominent; the occipital bone full and prominent, especially in its upper half; the frontal sinuses and the glabella full and large; the nasal bones very large and broad, with a finely aquiline profile; the lachrymal bones and canals large; the face square and broad; the superior maxillæ somewhat unduly prominent along the alveolar margin, and thus giving a slightly prognathic character to the face; the bony palate wide and deep, &c. [221]

Fig. 34.



ANCIENT ROMAN.

[219] Op. cit.

[220] Kraniologisches von A. Retzius, in Müller's Archiv für Anat., Phys., &c. Jahr., 1849, p. 576.

[221] Op. cit., p. (3). See, also, a paper "On the Crania of the Ancient Romans," read by Mr. J. B. DAVIS, before the British Association. Sept., 1855.

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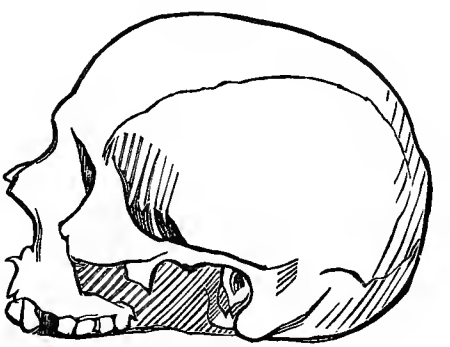
One of the long-vexed, but still unsolved problems of the historian and the ethnologist, is the origin and affiliations of the ancient Etruscans. Whether they were emigrants from a foreign land, as, with very few exceptions, the traditions of the ancients imply, or whether, as most modern writers contend, they are really indigenæ, is still an open question. Possessing a civilization stretching back to, perhaps, about 1000 years B. C., a cultivated literature and great physical science, an elaborate religious system, whose machinery rivalled in complexity the colossal Theisms of Hindostan and Egypt, and an artistic development of a high, and in some respects peculiar order, they excelled all the early nations of Europe, except the Greeks, when in their palmiest days. Their language was cognate with older forms of the Hellenic and Latin tongues; but, judging from the figures represented upon the coverings of sarcophagi, in painted tombs, and on ceramic productions, their physical characters distinguished them effectually from the surrounding nations. According to Prof. K. O. Müller, the proportions observed in these figures indicate a race of small stature, with great heads; short, thick arms, and a clumsy and inactive conformation of body, the "obesos et pingues Etruscos." They appear to have possessed large, round faces; a thick and rather short nose, large eyes, a well-marked and prominent chin.[222] EDWARDS, however, speaks of observing among the peasantry of Tuscany (ancient Etruria), in the statues and busts of the Medici family, and in the bas-reliefs and effigies of the great men of the Florentine Republic, a type of head characterized by its length and narrowness, by a considerable frontal development, by a long, sharp-pointed, and arched nose.

The *Galerie Anthropologique*, at Paris, contains a "*Crâne étrusque* donné par le Prince Charles Bonaparte," from a photograph of which the accompanying figure was reduced. The reader will observe the peculiar conformation of this skull; the rude massiveness of structure, the elevation of the frontal region, the flatness of the crown, and the downward inclination of the parietal bones towards the full and rounded occiput. The

Fig. 35.



CRÂNE ÉTRUSQUE.

[222] *O. Müller*, Abhandlung der Berlin, Akad. 1818 und 1819, cited by Prichard, in "Researches," &c., iii. 256: — but, see, on these philological and archæological questions, M. Maury's Chap. I., and M. Pulszky's Chap. II., in this volume, *ante*.

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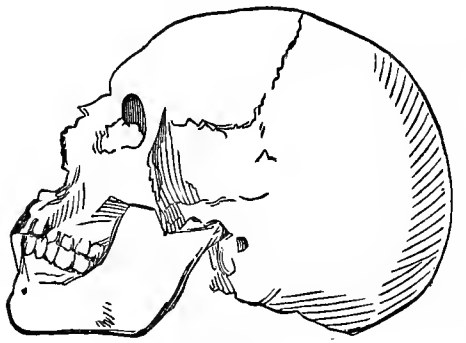
description of Müller coincides very well with the appearance of this skull.

Fig. 36.



PHŒNICIAN.

In Fig. 36 the reader has before him another peculiar type — and a unique specimen — of skull, that of the Ancient Phœnicians, the *sea-wanderers* (a name their habits suggest and justify), the bold navigators and commercial traders of antiquity, who, as early as the sixth century, B. C., had dared the waters of the Atlantic, and, perhaps, doubled the Cape of Good Hope in their fearless explorations; and whose language, after being lost for nearly two thousand years, has lately been deciphered, and its long-hidden secrets revealed to the world.[223]

"I received this highly interesting relic," says Dr. MORTON, "from M. F. Fresnel, the distinguished French archæologist and traveller [since deceased, February, 1856, at Bagdad, in the midst of Ninevite explorations], with the following memorandum, A. D. 1847: — 'Crâne provenant des caves sépulchrales de Beu-Djemma, dans l'île de Malte. Ce crâne paraît avoir appartenu à un individu de la race qui, dans les temps les plus anciens, occupait la côte septentrionale de l'Afrique, et les îles adjacentes.'"[224]

This cranium is the one alluded to in the interesting anecdote narrated by the late Dr. PATTERSON, in his graceful Memoir, as illustrating the wonderful power of discrimination, the *tactus visus*, acquired by Dr. MORTON in his long and critical study of craniography.[225] From this circumstance, and from the many singular and interesting associations inseparably connected with its antiquity, its introduction here cannot fail to be received with a lively sense of interest by those engaged in these studies. It is in many respects a peculiar skull. In a profile view, the eye quickly notices the remarkable length of the occipito-mental diameter. This feature gives to the whole head an elongated appearance, which is much heightened by the general narrowness of the calvaria, the backward slope of the occipital region, and the strong prognathous tendency of the maxillæ. The contour of the coronal region is a long oval, which recalls to the mind the kumbe-kephalic form of WILSON. The moderately well-developed forehead is notable for its regularity. In its form and general characters the face is sui generis. It may

[223] See Pulszky's Chap. I., p. 129–137, *ante*.

[224] See Morton's Catalogue of Skulls of Man and the Inferior Animals. Philada., 1849. No. 1352.

[225] See Types of Mankind, p. xl.

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not inaptly be compared to a double wedge, for the facial bones are not only inclined downwards and remarkably forward, thus tapering towards the chin, but also in consequence of the flatness of the malar bones and the inferior maxillary rami they appear laterally compressed, sloping gently, on both sides, from behind forwards, towards the median line. The lower jaw is large, and much thrown forwards. The slope of the superior maxilla forms an angle with the horizon of about 45°. Notwithstanding this inclination of the maxilla, the incisor teeth are so curved as to be nearly vertical. Hence the prognathism of the jaws is quite peculiar, differing, as it does, from that of the Eskimo cranium already alluded to, and from the true African skulls presently to be noticed.

In the consideration of European types, we pass next to the supposed primeval home of the human family. In the mountainous but fertile region of the Caucasus, extending from the Euxine to the Caspian Seas, dwell numerous tribes, speaking mutually unintelligible languages, and differing in physical characters. From this region were the harems of the Turk and Persian supplied with those beautiful Georgian and Circassian females, who have, to no small extent, imparted their physical excellence to the former people. Some idea of the multiplicity of languages spoken in this small area may be obtained from a fact mentioned by Pliny, that at Dioscurias, a small sea-port town, the ancient commerce with the Greeks and Romans was carried on through the intervention of one hundred and thirty interpreters.

This Caucasian group of races, comprising the Circassian or Kabardian race, the Absné or Abassians, the Oseti or Irôn, the Mizjeji, the Lesgians, and the Georgians, is classed by LATHAM, singularly enough, with the Mongolidæ. In alluding to their physical conformation, he speaks of them as "modified Mongols," although he confesses his inability to answer the patent physiological objections to such an arrangement — objections based upon the symmetry of shape and delicacy of complexion on the part of the Georgians and Circassians.

"The really scientific portion of these anatomical reasons" (for connecting the above group with the European nations), says he, "consists in a single fact, which was as follows: —Blumenbach had a solitary Georgian skull, and that solitary Georgian skull was the finest in his collection, that of a Greek being the next. Hence, it was taken as the type of the skull of the more organized divisions of our species. More than this, it gave its name to the type, and introduced the term *Caucasian*. Never has a single head done more harm to science than was done in the way of posthumous mischief, by the head of this well-shaped female from Georgia. I do not say that it was not a fair sample of all Georgian skulls. It might or might not be. I only lay before critics the amount of induction that they have gone upon." [226]

[226] The Varieties of Man, pp. 105, 111, 108. The attention of the reader is directed to the following paragraph, descriptive of the Georgian cranium referred to above. "The form of this head is of such distinguished elegance, that it attracts the attention of all who

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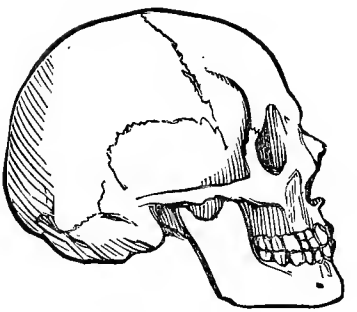
Fig. 37.



CIRCASSIAN (764).

Now Morton's Collection contains four well-marked Circassian heads,—two male and two female,—which, although they do not strictly coincide in structure and configuration with the Georgian skull, nevertheless approximate more decidedly the Japhetic or European form than the Mongolian, as will be seen by the annexed cut and description of one of these crania, that of a man, ætat. 40 years, and exhibiting an internal capacity of 90 cubic inches. The calvaria is well developed and regularly arched, and in size considerably exceeds the face. The proportions between the vertical, transverse, and longitudinal diameters are such as to convey to the eye an impression of harmony and regularity of structure. The high and broad forehead forms with the parietal region a continuous and symmetrical convexity. The occiput is full and prominent. The face is strongly marked; the orbits moderate in size; the nasal bones prominent; the malar bones small and rounded; the teeth vertical; the maxillæ of medium size, and the chin prominent. The fulness of the face, its oval contour, and general want of angularity, decidedly separate this head from the Mongolian type, as represented by the Kalmuck skull already figured and described. Did space permit, other differences could readily be pointed out.

These characters accord very well with the descriptions of these people, given us by different travellers. The Circassians who call themselves Attighé or Adigé (Zychi of the Greeks and Latins, Tcherkess of the Russians) have always been celebrated for their personal charms. Mr. SPENCER says that, among the Nottahaizi tribe, every individual he saw was decidedly handsome.[227] "The men," says

visit the collection in which it is contained. The vertical and frontal regions form a large and smooth convexity, which is a little flattened at the temples; the forehead is high and broad, and carried forwards perpendicularly over the face. The cheek-bones are small, descending from the outer side of the orbit, and gently turned back. The superciliary ridges run together at the root of the nose, and are smoothly continued into the bridge of that organ, which forms an elegant and finely-turned arch. The alveolar processes are softly rounded, and the chin is full and prominent. In the whole structure, there is nothing rough or harsh, nothing disagreeably projecting. Hence, it occupies a middle place between the two opposite extremes, of the Mongolian variety, in which the face is flattened, and expanded laterally; and the Ethiopian, in which the forehead is contracted, and the jaws also are narrow and elongated anteriorly."—LAWRENCE, op. cit., p. 228.

[227] Travels in Circassia, ii., 245.

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PALLAS, "especially among the higher classes, are mostly of a tall stature, thin form, but Herculean structure. They are very slender about the loins, have small feet, and uncommon strength in their arms. They possess, in general, a truly Roman and martial appearance. The women are not uniformly Circassian beauties, but are, for the most part, well formed, have a white skin, dark-brown or black hair, and regular features. . . . . I have met with a greater number of beauties among them than in any other unpolished nation."[228] Says KLAPROTH,—"They have brown hair and eyes, long faces, thin, straight noses, and elegant forms."[229] "Their profile approaches nearest the Grecian model," writes MORTON, "and falls little short of the beau-ideal of classic sculpture."[230] The Abassians, probably autochthones of the north-west Caucasus,—"are distinguished from all the neighbouring nations by their narrow faces, by the figure of their heads, which are compressed on both sides, by the shortness of the lower part of the face, by their prominent noses and dark-brown hair."[231] From all accounts, the Georgians, "a people of European features and form," are but little, if at all, inferior to the Circassians in physical endowments. According to REINEGGS, the Georgian women are even more beautiful than the Circassians.[232] "Le sang de Géorgie," says CHARDIN, "est le plus beau de l'Orient, et je puis dire, du monde. Je n'ai pas remarqué un visage laid en ce pays-là, parmi l'un et l'autre sexe, mais j'y en ai vu d'angéliques."[233]

The extreme south-eastern section of the European ethnic area, occupying mainly the table-land of Iran, is represented in the Mortonian Collection by six Armenian, two Persian, and one Affghan skull. A general family resemblance pervades all these crania. They are all, with one exception, remarkable for the smallness of the face, and shortness of head. In the Armenian skull, the forehead is narrow but well formed, the convexity expanding upwards and backwards towards the parietal protuberances, and laterally towards the temporal bones. The greatest transverse diameter is between the parietal bosses. This feature, combined with the flatness of the occiput, gives to the coronal region an outline somewhat resembling a triangle with all three angles truncated, and the base of the triangle looking posteriorly. In fact, the whole form of the calvaria is such as to impress the mind of the observer with a sense of squareness

[228] Travels in Southern Provinces of the Russian Empire, I. 398.
[229] Travels in Caucasian Countries.
[230] Crania Americana, p. 8.
[231] Klaproth, Caucasus, p. 257.
[232] Allgemeine historische-topographische Beschreibung des Kaukasus.
[233] Voyages en Perse, I., 171.

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and angularity. The dimensions of the orbits are moderate; the malar bones small, flat, and retreating; the zygomatic processes slender, and the general expression of the face resembling that of the Circassians, from which latter it differs in being shorter. The Persian head is less angular, the frontal region broader, the occiput fuller, and the malar bones larger. The lower jaw is small and rather round. The Affghan skull — that of a boy, aged about sixteen years — resembles, in several respects, the Hindoo type already described.

The Syro-Arabian or Semitic race, comprising the Arabians, Assyrians, Chaldæans, Hebrews, and cognate tribes, also falls within the European area.

"The physical conformation of the Arabs proper," says MORTON, "is not very unlike that of their neighbors, the Circassians, although, especially in the women, it possesses much less of the beautiful. . . . The Arab face is a somewhat elongated oval, with a delicately-pointed chin, and a high forehead. Their eyes are large, dark, and full of vivacity; their eye-brows are finely arched; the nose is narrow and gently aquiline, the lips thin, and the mouth small and expressive."[234] In another place, he says: "The head (of the southern or peninsular Arabs) is, moreover, comparatively small, and the forehead rather narrow and sensibly receding; to which may often be added a meagre and angular figure,[235] long, slender limbs, and large knees."[236] Mr. FRAZER thus describes the physiognomy of the genuine Arabs. "The countenance was generally long and thin; the forehead moderately high, with a rounded protuberance near its top; the nose aquiline; the mouth and chin receding, giving to the line of the profile a circular rather than a straight character; the eye deep set under the brow, dark, and bright."[237] According to DE PAGES, the Arabs of the desert between Bassora and Damascus have a large, ardent, black eye, a long face, features high and regular, and, as the result of the whole, a physiognomy peculiarly stern and severe."[238]

The famous Baron LARREY asserts that the skulls of the Arabians display "a most perfect development of all the internal organs, as well as of those which belong to the senses. . . . . Independently of the elevation of the vault of the cranium, and its almost spherical form, the surface of the jaws is of great extent, and lies in a straight or perpendicular line; the orbits, likewise, are wider than they are

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[234] Cran. Americana, p. 18.

[235] "Toutes leurs formes sont anguleuses," says Denon; "leur barbe courte et à mèches pointues." *Voyage en Egypte*, I., p. 92.

[236] Cran. Ægyptiaca, p. 47.

[237] Narrative of a Journey in Khorasan.

[238] Travels round the World.

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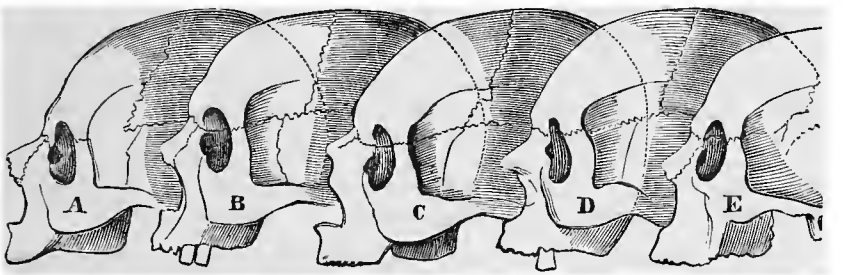
usually seen in the crania of Europeans, and they are somewhat less inclined backwards; the alveolar arches are of moderate size, and they are well supplied with very white and regular teeth; the canines, especially, project but little. The Arabs eat little, and seldom of animal food. We are also convinced that the bones of the cranium are thinner in the Arab than in other races, and more dense in proportion to their size, which is proved by their greater transparency."[239]

The reader will obtain some idea of the Arabian cranial type from the subjoined figure, representing several Bédawees of the Isthmus of Suez (Nos. 766–770, of the Mortonian Collection.)

Fig. 88.



Arabs (Bédawes of Isthmus).

Figs. 39 and 40 represent the profile and facial views of an ancient Assyrian skull, obtained, by Dr. Layard, from an ancient mound,

Fig. 39.

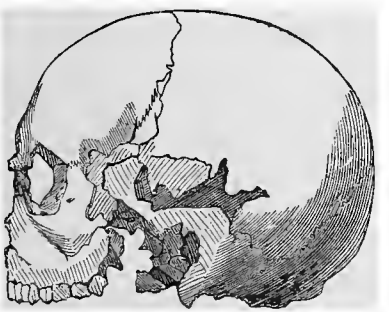
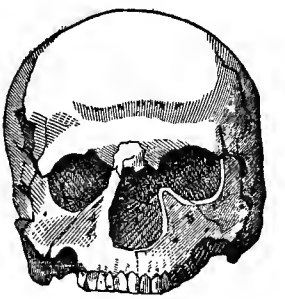


Fig. 40.



Ancient Assyrian.

and now deposited in the British Museum. The representations here given are reductions from natural-size drawings sent to Dr. Nott by Mr. J. B. Davis, of Shelton, Staffordshire, who, in an

[239] Comptes Rendus, t. 6, p. 774.

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accompanying letter, vouches for their general accuracy and faithfulness to nature.

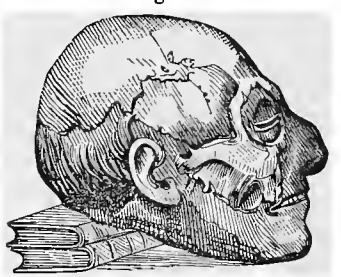
"This skull," says Dr. NOTT, "is very interesting, in several points of view. Its immense size confirms history by showing that none but a high 'Caucasian' race could have achieved so much greatness. The measurements taken from the drawing are —

Longitudinal diameter,	$7\frac{3}{4}$	inches.
Transverse "	$5\frac{3}{8}$	"
Vertical "	$5\frac{1}{4}$	"

"It is probable that the parietal diameter is larger than the measurement here given; because, possessor of only front and profile views, I think these may not express fairly the posterior parts of the head. There are but two heads in Morton's whole Egyptian series of equal size, and these are 'Pelasgic;' nor more than two equally large throughout his American series. Daniel Webster's head measured — longitudinal diameter, $7\frac{7}{8}$ inches; transverse, $5\frac{3}{4}$; vertical, $5\frac{1}{2}$: and comparison will show that the Assyrian head is but a fraction the smaller of the two.[240]

"This Assyrian head, moreover, is remarkable for its close resemblance to several of Morton's Egyptian series, classed under the 'Pelasgic form.' It thus adds another powerful confirmation to the fact this volume ('Types of Mankind') establishes, viz., that the Egyptians, at all monumental times, were a mixed people, and in all historical ages were much amalgamated with Chaldaic races. Any one, familiar with crania, who will compare this Assyrian head with the beautiful Egyptian series lithographed in the *Crania Ægyptiaca*, cannot fail to be struck with its resemblance to many of the latter, even more forcibly than anatomists will, through our small, if accurate, wood-cuts."

Fig. 41.



The familiar Hebraic type is very well shown in Fig. 41 (No. 842 of the Mortonian Collection), representing a mummied cranium, taken from an Egyptian sepulchre. "This head," writes MORTON, "possesses great interest, on account of its decided Hebrew features, of which many examples are extant on the monuments" (of Egypt). The fragmentary *colossal head from Kouyunjik* (Fig. 42, on next page), affords an excellent idea of the higher and more ancient Chaldæic type.

I hasten to complete the consideration of Caucasian types by referring briefly to the peculiarities presented by Egyptian crania. Dr.

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[240] But even the head of Webster is surpassed by the skull of a German baker, in the Museum of the University of Louisville, which Prof. T. G. RICHARDSON, with the assistance of Prof. B. SILLIMAN, JR., found to possess the extraordinary internal capacity of 125.77 cubic inches, and to present the following external measurements:

Occipito-frontal, or longitudinal diameter	$8\frac{1}{4}$ inches.
Bi-parietal, or transverse diameter	$6\frac{1}{4}$ "
Vertical diameter	$6\frac{1}{5}$ "
Circumference	$23\frac{3}{4}$ "
Over the vertex, between the centres of the auditory meatuses	$14\frac{3}{4}$ "

See *Elements of Human Anatomy*. By T. G. Richardson, M. D. Philada., 1854, p. 167.

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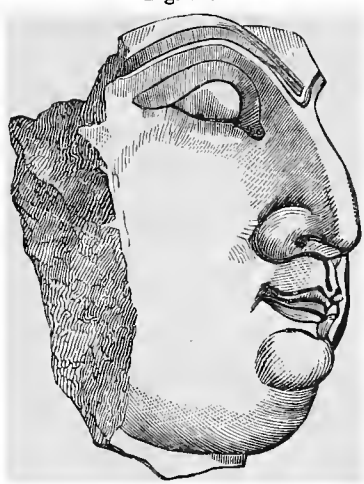
Fig. 42.



Morton's severely learned and accurate labors in this field are too well known to the scientific world to render necessary in this place any lengthened craniographic description of the exceedingly ancient and highly civilized occupants of the classic *Nilotica Tellus*. Premising that the population of Egypt, even in very remote times, was exceedingly mixed, that the ancient sepulchres of the Nile contain Negroid as well as Caucasian crania, and that, among the latter, Morton distinguished three distinct forms or varieties—the Egyptian proper, the Pelasgic, and Semitic,—I proceed to give the reader some idea of the first two of these varieties, by means of the following concise extracts and expressive illustrations, taken at random from *Crania Ægyptiaca*.

"The Egyptian form differs from the Pelasgic in having a narrow and more receding forehead, while, the face being more prominent, the facial angle is consequently less. The nose is straight or aquiline, the face angular, the features often sharp, and the hair uniformly long, soft, and curling. . . . . The subjoined wood-cut (Fig. 43)

Fig. 43.

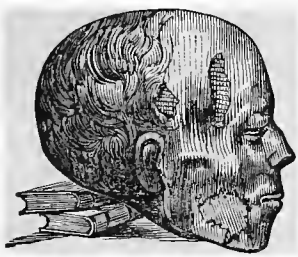


Fig. 44.

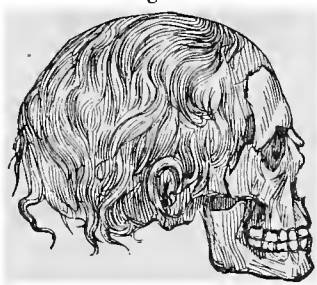


Fig. 45.

Fig. 46.

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illustrates a remarkable head, which may serve as a type of the genuine Egyptian conformation. The long oval cranium, the receding forehead, gently aquiline nose, and retracted chin, together with the marked distance between the nose and mouth, and the long, smooth hair, are all characteristic of the monumental Egyptian," and well shown in Figs. 44, 45, 46 (*retro*). "To this we may add, that the most deficient part of the Egyptian skull is the coronal region, which is extremely low, while the posterior chamber is remarkably full and prominent."

The Pelasgic form is represented in Fig. 47 — "A beautifully-formed head, with a forehead high, full, and nearly vertical, a good coronal region, and largely developed occiput. The nasal bones are long and straight, and the whole facial structure delicately proportioned. Age between 30 and 35 years. Internal capacity 88 cubic inches; facial angle 81°. *Pelasgic form*," — and in Fig. 48, — "Head

Fig. 47.

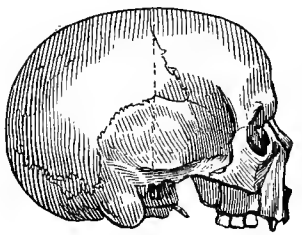

Fig. 48.

Fig. 49.

of a woman of thirty, of a faultless Caucasian mould. The hair, which is in profusion, is of a dark brown tint, and delicately curled. *Pelasgic form*." Fig. 49, originally delineated in Napoleon's *Description de l'Egypte*, admirably illustrates the Egyptian type or configuration.

Of the Fellahs of Lower Egypt, the lineal descendants of the ancient rural Egyptians, an excellent idea may be obtained from the engraving on next page (Fig. 50), representing five skulls of this people. "The skull of the Fellah is strikingly like that of the ancient Egyptian. It is long, narrow, somewhat flattened on the sides, and very prominent in the occiput. The coronal region is low, the forehead moderately receding, the nasal bones long and nearly straight, the cheek-bones small, the maxillary region slightly prognathous, and the whole cranial structure thin and delicate. But, notwithstanding

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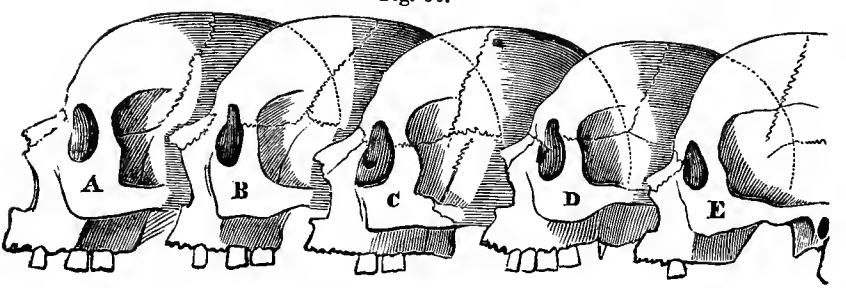
Fig. 50.

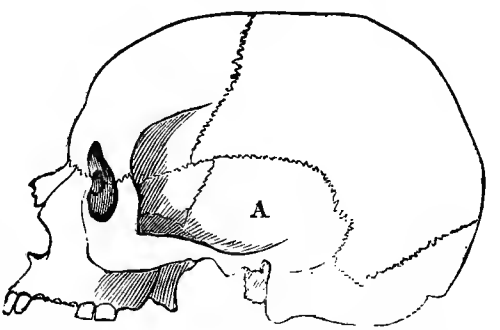


these resemblances between the Fellah and Egyptian skulls, the latter possess what may be called an *osteological expression* peculiar to themselves, and not seen in the Fellah."

According to PRUNER, the skull of the Fellah is broader and thicker than that of the Arab.[241]

Fig. 51 represents a Coptic cranium, which Morton describes as "elongated, narrow, but otherwise mediately developed in front, with great breadth and fulness in the whole posterior region. The nasal bones, though prominent, are broad, short, and concave, and the upper jaw is everted. There is also a remarkable distance between the eyes."[242]

Fig. 51.



Turn we now to the consideration of the human skull-types characterizing the so-called African Realm — a region cut off, as it were, from the rest of the world by the vast Saharan Desert, once the bed of an ancient ocean, but now constituting a natural line of demarcation between the organic worlds of Europe and Africa.

A glance at a large chart or map of the African continent, as at present known to us, reveals the various races or nations of this part of the world, distributed in a somewhat triangular manner. The apex of this triangle, composed of the Hottentot family, coincides with the southern extremity of the continent; the two sides are represented by the tribes of the western and eastern coasts; while the base, skirting the sands of Sahara, and stretching from

[241] Die Ueberbleibsel der altägyptischen Menschenraçe. Von Dr. Franz Pruner, München 1846, p. 13.

[242] Crania Ægyptiaca, p. 57.

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the Atlantic Ocean to the Red Sea, north of the Mountains of the Moon, is composed of numerous and diversified tribes, who, under the influences of Arabian, Berber, and other foreign immigrations, have assumed, in general, a higher character than those of the South African family. This triangular area of African types incloses a *terra incognita*, towards which the ethnologist already looks for remarkable revelations.[243] It would require many pages to describe the cranial characters of the numerous indigenous and exotic tribes — some exceedingly ancient, and some quite modern — which the traveller beholds in journeying from Cape Verde to Abyssinia, thence to the Cape of Good Hope, and so to the point of departure on the western coast. A very brief representation, therefore, of some of the principal cranial types must here suffice.

BLUMENBACH has already commented upon the number and diversity of African skull-forms. He figures six African heads in the *Decades*, all differing from each other in frontal development, prominence of the maxillæ, configuration of chin, &c. This diversity of form is still better shown by the African heads contained in the Mortonian Collection; from which series I select, as the *peculiar* type of Africa, not the highest, but a specimen of the lowest form — that of the woolly-haired, prognathous man, the true Negro (Fig. 52, on next page). In doing so, I but follow the example of LAWRENCE, and the advice of MÜLLER, ZEUNE, and others. That the head here figured

[243] At a meeting of the Academy of Natural Sciences of Philadelphia, held October 16th, 1855, "Mr. CASSIN announced, that M. Duchaillu was about to return to Western Africa, for the purpose, exclusively, of geographical exploration, and the collection of objects of Natural History. Arrangements have been made to secure, for the cabinet of this Society, the collections of Birds especially, and also of some other objects. Mr. Cassin explained the general design of the Expedition, which was to pass from Cape Lopez, 1° S. latitude, towards the supposed source of the Congo River, with the intention of attempting to reach its source. Mr. Duchaillu has already penetrated farther into the interior of this part of Africa than any other white man. The coast is unknown farther inland than from twenty to twenty-five miles, except to slavers, there having been no exploration of that part of Africa. M. Duchaillu had been on the Rivers Moonda and Mouni, had traced the latter to its source, and had ascertained the existence of high mountains, probably a continuation or spur of the Atlas range, and much further south than is to be found in any published maps. Another fact ascertained by him, is the existence of a very populous nation, of marked Negro character, known as the Powein Nation, which he estimates at from five to seven millions. Their country extends across from the sources of the Moonda, probably to the sources of the Nile, and the nation is probably that mentioned by Bruce, as occasionally descending the Nile. It is a warlike and cannibal nation, engaged in agriculture, not wandering, resembling in this respect the Ashantees and Dahomeys. It displays the highest degree of civilization yet observed among the true Negroes, presenting an analogy to the Feejees, among the Oceanic nations. M. Duchaillu possesses peculiar advantages as an explorer. He has lived long in the country, is entirely acclimated, speaks well two of the languages, and understands thoroughly the Negro character. He proposes to proceed merely with convoys of natives from each tribe successively to the next."

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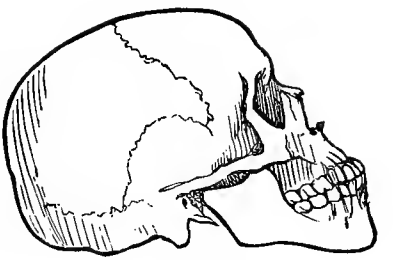
(No. 983 of the Collection) is neither an unusual nor exaggerated form, is rendered evident by comparing it with the Creole Negro given in the first volume of PRICHARD'S laborious *Researches into the Physical History of Mankind*, with the drawings of SANDIFORT,[244] and CAMPER,[245] or with the skull represented on Plate VIII. of *Lawrence's Lectures*. Indeed, this latter drawing presents a more degraded form than the accompanying figure. The general typical resemblance, however, is so great, that I transcribe, without hesitation and for self-evident reasons, the following description by LAWRENCE:

Fig. 52.



NEGRO.

"The front of the head, including the forehead and face, is compressed laterally, and considerably elongated towards the front; hence the length of the whole skull, from the teeth to the occiput, is considerable. It forms, in this respect, the strongest contrast to that globular shape which some of the Caucasian races present, and which is very remarkable in the Turk. — The capacity of the cranium is reduced, particularly in its front part. . . . The face, on the contrary, is enlarged. The frontal bone is shorter, and, as well as the parietal, less excavated and less capacious than in the European; the temporal ridge mounts higher, and the space which it includes is much more considerable. The front of the skull seems compressed into a narrow keel-like form between the two powerful temporal muscles, which rise nearly to the highest part of the head; and has a compressed figure, which is not equally marked in the entire head, on account of the thickness of the muscles. Instead of the ample swell of the forehead and vertex, which rises between and completely surmounts the comparatively weak temporal muscles of the European, we often see only a small space left between the two temporal ridges in the Ethiopian. — The foramen magnum is larger, and lies farther back in the head; the other openings for the passage of the nerves are larger. — The bony substance is denser and harder; the sides of the skull thicker, and the whole weight consequently more considerable. — The bony apparatus employed in mastication, and in forming receptacles for the organs of sense, is larger, stronger, and more advantageously constructed for powerful effect, than in the races where more extensive use of experience and reason, and greater civilization, supply the place of animal strength. — If the bones of the face in the Negro were taken as a basis, and a cranium were added to them of the same relative magnitude which it possesses in the European, a receptacle for the brain would be required much larger than in the latter case. However, we find it considerably smaller. Thus the intellectual part is lessened, the animal organs are enlarged: proportions are produced just opposite to those which are found in the Grecian ideal model. . . . The narrow, low, and slanting forehead, and the elongation of the jaws into a kind of muzzle, give to this head an animal character, which cannot escape the most cursory examination. . . . It is sufficiently obvious, that on a vertical

[244] Museum Acad. Lugd. Batav., t. I, tab. 3.

[245] Dissertat sur les Varietés Naturelles, &c., tab. I., fig. 3. — Since writing the above, a number of human crania and casts, formerly belonging to Dr. Harlan's Collection, have been presented to the Academy, by Mr. Harlan. Among these, is the cast of a Mozambique skull, closely resembling the heads above alluded to.

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antero-posterior section of the head, the area of the face will be more considerable in proportion to that of the cranium, in such a skull, than in the fine European forms. — The larger and stronger jaws require more powerful muscles. The temporal fossa is much larger; the ridge which bounds it rises higher on the skull, and is more strongly marked, than in the European. The thickness of the muscular mass may be estimated from the bony arch, within which it descends to the lower jaw. The zygoma is larger, stronger, and more capacious in the Negro; the cheek-bones project remarkably, and are very strong, broad, and thick: hence they afford space for the attachment of powerful masseters. — The orbits, and particularly their external apertures, are capacious. — Both entrances to the nose are more ample, the cavity itself considerably more capacious, the plates and windings of the ethmoid bone more complicated, the cribriform lamella more extensive, than in the European. The ossa nasi are flat and short, instead of forming the bridge-like convexity which we see in the European. They run together above into an acute angle, which makes them considerably resemble the single triangular nasal bone of the monkey. . . . The superior maxillary bone is remarkably prolonged in front; its alveolar portion and the included incisor teeth are oblique, instead of being perpendicular, as in the European. The nasal spine at the entrance of the nose is either inconsiderable, or entirely deficient. The palatine arch is longer and more elliptical. The alveolar edge of the lower jaw stands forward, like that of the upper; and this part in both is narrow, elongated, and elliptical. The chin, instead of projecting equally with the teeth, as it does in the European, recedes considerably like that of the monkey. — The characters of the Ethiopian variety, as observed in the genuine Negro tribes, may be thus summed up: 1. Narrow and depressed forehead; the entire cranium contracted anteriorly: the cavity less, both in its circumference and transverse measurements. 2. Occipital foramen and condyles placed farther back. 3. Large space for the temporal muscles. 4. Great development of the face. 5. Prominence of the jaws altogether, and particularly of their alveolar margins and teeth; consequent obliquity of the facial line. 6. Superior incisors slanting. 7. Chin receding. 8. Very large and strong zygomatic arch projecting towards the front. 9. Large nasal cavity. 10. Small and flattened ossa nasi, sometimes consolidated, and running into a point above. — In all the particulars just enumerated, the Negro structure approximates unequivocally to that of the Monkey. It not only differs from the Caucasian model, but is distinguished from it in two respects; the intellectual characters are reduced, the animal features enlarged, and exaggerated. In such a skull as that represented in the eighth plate, *which, indeed, has been particularly selected, because it is strongly characterized,* no person, however little conversant with natural history or physiology, could fail to recognize a decided approach to the animal form. This inferiority of organization is attended with corresponding inferiority of faculties; which may be proved, not so much by the unfortunate beings who are degraded by slavery, as by every fact in the past history and present condition of Africa."[246]

Thus much for the cranial *physique* of the genuine tropical Negro. The tribes of Western Africa present us with higher forms of the skull, and less degraded physical and intellectual traits. These tribes, divided by a recent writer and zealous missionary, the Rev. J. L. WILSON, into the Senegambians, and the Northern and Southern Guineans,[247] for the most part dwell in small isolated communities, each composed of a few villages, and having an aggregate population varying from two to thirty thousand. Even the kingdoms of Ashantee

[246] Op. cit., pp. 242, 3, 4–6.

[247] Ethnographic View of Western Africa.

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and Dahomey, the largest political organizations of Western Africa, are not superior in population and extent of territory to some of the smaller European kingdoms. According to WILSON, the inhabitants of this region have fixed habitations, cultivate the soil, have herds of domestic animals, and have made very considerable progress in most of the mechanic arts. That the various tribes differ remarkably from each other in physiognomical characters, will be seen from the following condensed notice of some of the principal families.

The Mandingoes, a commercial people occupying the country in which the Niger takes its rise, extending through the kingdoms of Bambouk, Bambara, and Wuli, and, in smaller or larger groups, covering all the country from Jalakonda to the sea-coast, are described by WILSON as "men of tall stature, slender, but well-proportioned, black complexion, and woolly hair, but with much more regular features than belong to the true Negro." According to GOLDBERRY, they resemble more the blacks of India, than those of Africa.[248] "The appearance of the Mandingoes," says Major LAING, "is engaging; their features are regular and open; their persons well-formed and comely, averaging a height rather above the common."

The Fulahs inhabit Fuladu, north-west of Manding, the region between the sources of the Senegal and Niger, and the three large Senegambian provinces, Futa-Torro, Futa-Bondu, and Futa-Jallon, extending also towards the heart of Soudan. The origin and purity of this peculiar people have been much discussed. Linguistically and physically, they are distinct from the surrounding tribes over whom they rule. They deny their Negro origin, and consider themselves a mixed race. However, "their physical type of character is too permanent, and of too long standing, to admit of the idea of an intermixture. In all mixed races, there is a strong and constant tendency to one or the other of the parent types, and it is difficult to point out a mixed breed that has held an intermediate character for any considerable time, especially when it has been entirely cut off from the sources whence it derived its being. But the Fulahs are now, in all their physical characteristics, just what they have been for many centuries. And it would seem, therefore, that their complexion, and other physical traits, entitle them to as distinct and independent a national character as either the Arab or Negro, from the union of which it is supposed that they have received their origin."[249] GOLDBERRY informs us that the color of their skin is a kind of reddish black; their countenances are regular, and their hair is longer, and not so woolly, as that of the common Negroes;

[248] Travels in Africa, Vol. I. p. 74.

[249] Wilson, op. cit., p. 7.

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their language is altogether different from that of the nations by whom they are surrounded — it is more elegant and sonorous."[250] MOLLIEN, relying upon traditions extant about the Senegal, thinks that the Fulahs migrated along with the Jalofs from North Africa, whence they were expelled by the Moors."[251] D'EICHTHAL assigns them a Malayan origin;[252] but the inquiries of HODGSON negative this opinion.[253] The Jalofs, a compact and limited people, occupying all the maritime districts of Senegambia, as well as a large part of the interior, number one million souls, who are distributed into four sections, — those of Cayor, Sin, Salem, and Brenk. They are the most northern, as well as the most comely, of all the west-coast Negroes, and, according to GOLDBERRY, are robust and well-made; their features are regular; their color a deep and transparent black; hair crisped and woolly; nose rather round; lips thick.[254] The Vai family, comprising the Timanis, Bulloms, Deys, Condoes, Golahs, and Mendas, is one of the principal families of North Guinea. They "are very black, of slender frames, but with large and well-formed heads, and of a decidedly intellectual cast of countenance." The Manou, or Kroo family, comprises the Bassas, Fish, Kroo proper, Sestos, Grebo, Drewin, and St. Andrew's people, tribes occupying the Liberian coast, between the Bassa and St. Andrew's rivers. "The person of the Kruman is large, square-built, and remarkably erect. He has an open and manly countenance, and his gait is impressively dignified and independent. His head, however, is small and peaked, and is not indicative of high intellectual capacity." The Quaquas, with dark complexions, and very large, round heads; the Ashantees, of the Inta or Amina family, presenting more decided Negro characteristics than the other tribes of this region; the Dahomey family; and finally, the Benin tribes, a very black race of savages, inhabiting the country between Lagos and the Kamerun Mountains, complete our rapid glance at the people of Northern Guinea.

The above-mentioned families are represented in the Mortonian Collection, by skulls of the Mina, Dey, Grebo, Bassa, Golah, Pessah, Kroo, and Eboe tribes.

The Golah skull (No. 1093), is remarkable for its massiveness and density. The calvaria is well-formed, expanding from the frontal

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[250] Op. cit., Vol. I. p. 72.

[251] Voyages en Afrique, t. I. et II.

[252] Histoire et Origine des Foulahs ou Fellans. Par Gustave d'Eichthal — in Mémoires de la Société Ethnologique, t. I.

[253] Notes on Northern Africa, the Sahara and Soudan. By Wm. B. Hodgson. New York, 1844.

[254] Op. cit., pp. 74–75.

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region back towards the occiput, which is flat and shelving. The two halves of the os frontis form a double inclined plane, whose summit coincides with the sagittal suture. The basis cranii is full and round, and the mastoid processes large; nasal bones flat, and falling in below the glabella; orbits large, and widely separated; malar bones laterally prominent. This latter feature, in conjunction with the double inclination of the os frontis, gives to the head a pyramidal form. The superior maxilla is distinctly everted at the alveolar margin. Another head of the same tribe is longer and narrower, and, in consequence of the flatness of the malar bones, has less of the pyramidal form. — The calvaria of a Pessah skull (No. 1095) is oblong in figure; the forehead flat, and receding; superciliary ridges ponderous; malar bones large and flat; upper jaw everted; lower jaw retracted, occiput protuberant. In a Kroo head (No. 1098), I find the forehead broad and high; the calvaria regularly arched, and having its greatest diameter between the anterior and inferior parts of the parietalia; the occipital region flat and shelving downwards and forwards to a small foramen magnum; mastoid processes large; face very broad; malar bones shelving slightly like those of the Eskimo; inter-orbital space very large; upper jaw slightly everted; teeth rather small, and vertical; zygomatic fossæ deep. In another Kroo skull, the vertex is flat, the forehead recedent, and the jaws more prognathous. The calvaria of a Dey skull is narrow in front and broad posteriorly, with a flat vertex; face small, regular, and compact, and, were it not for the projection of the superior alveolus, might be considered as almost European. The skull of an Eboe (No. 1102), presents characters similar to those just detailed. It does not coincide with the physical descriptions of these people recorded by OLDFIELD in the *London Medical and Surgical Journal* (October, 1835), and by EDWARDS in his *History of the West Indies*, but is chiefly remarkable for the great obliquity of the orbital opening, and the unusual smallness of the mastoid processes.

Between North and South Guinea, the Kamerun Mountains appear to form a natural ethnographic line of division, rising as they do some fourteen thousand feet above the sea-level, and presenting upon their northern aspect the Old Kabardian language, and upon their southern, the Duali — two dialects which, according to Mr. WILSON, are as different from each other, with the exception of a few words that they have borrowed by frequent inter-communication, as any two dialects that might be selected from the remotest parts of the country. All along the coast, from the Kamerun to the Cape of Good Hope, an extraordinary diversity of physical type pre

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vails among the inhabitants. Thus, in the Gabun alone, WILSON distinguishes at least five very marked types. "1. There is the *Jewish type*, where the profile is strikingly Jewish, the complexion either a pale or reddish brown, the head well-formed, figure slender, but well-formed, and the hair nearly as woolly as that of the pure Negro. 2. There is another, that may be regarded as the *Fulah type*, where the stature is of middle size, complexion a dark brown, the face oval, and features regular, the hair in some cases crisp or woolly, and in others soft and even silky. 3. The *Kaffir type*, where the frame is large and strong, the complexion a reddish-brown, the lips thick, but not turned out, the nose somewhat dilated, but not flat like the Negro, the hands and feet well-formed, but the hair is crisp or woolly. 4. A type corresponding to the description given of the Kamerun and Corisco men, and in some cases showing a decided approximation to the features of the Somaulis, represented in Prichard's work on the physical history of Man. 5. What may be regarded as an approximation to the true Negro type, the most striking instance of which we have ever seen, is that of a man by the name of Toko, whose likeness is to be found in the *Day-Star*, for 1847. But even this shows a much better formed head, and a more intelligent countenance, than belongs to the pure Negro."[255]

In a Benguella skull in the Collection (No. 421), the forehead is broad and capacious, the calvarial arch full and regular, the posterior region appears elongated in consequence of the angle formed by the junction of a large *Wormian* piece and the occiput proper; face regular, superior maxillæ prognathous. A Mozambique skull (No. 423), resembles in form that of the Benguella and Kroos. In another Mozambique head (No. 1245), however, the forehead is narrower and higher. A cast of a Mozambique skull, recently added to the Collection, presents an exceedingly low and degraded form. Three Hottentot heads are long, compressed anteriorly; foreheads low; the whole face small and prognathous, the slope, from the glabella to the upper alveolus, being continuous; the occipital region protuberant. Only one of these heads approximates the pyramidal form. Two Kaffir skulls are characterized by high, peaked foreheads; the sagittal suture marked by a prominent ridge, and the calvaria pyramidal in form. Two Hova skulls have the base long and narrow, the vertex flat, the orbits narrow and high, and the superior maxillæ prominent.

The reader will obtain some idea of the different cranial forms of Africa, by glancing at the annexed cuts (Figs. 53, 54, 55, 56, 57, 58),

[255] Op. cit., p. 19.

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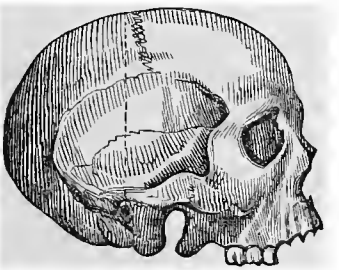
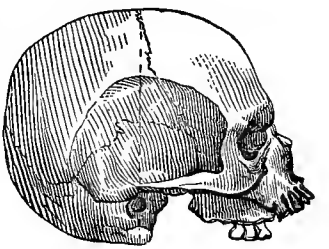
taken from the works of MORTON, PRICHARD, and MARTIN, and representing a few of both the higher and lower conformations of the skull.

Fig. 53.



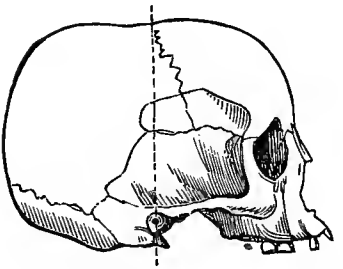
KAFFIR.

Fig. 54.



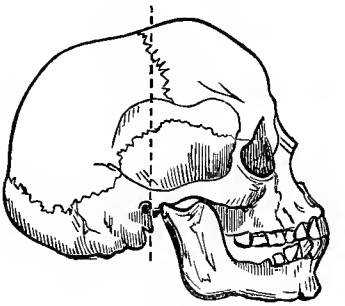
ASHANTEE.

Fig. 55.



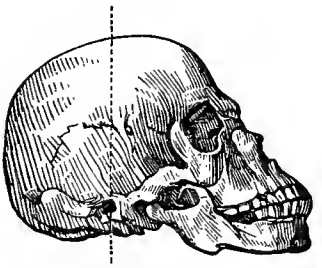
BUSHMAN.

Fig. 56.



MOZAMBIQUE.

Fig. 57.



CREOLE NEGRO.

Fig. 58.

MUMMIED NEGRESS.

Passing from Africa to America by the way of the Canary Isles, we encounter a peculiar type or form of skull — that of the ancient Guanches, who inhabited these Isles before they fell into the possession of the Spaniards. The annexed cut (Fig. 59, on next page,) shows that this type is neither African nor American, but appertains

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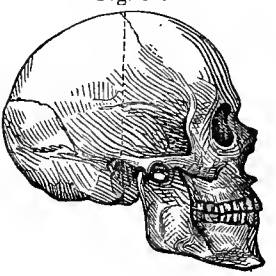
Fig. 59.



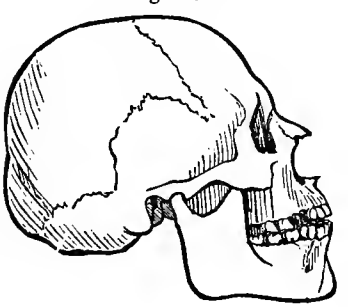
GUANCHE.

rather to the "Caucasian" family, as suggested by CUVIER, in his observations upon the *Vénus Hottentotte*.[256] This opinion is confirmed by a Guanche skull in the Mortonian Collection.

Through *Crania Americana*, it has long been known to the scientific world that a remarkable sameness of osteological character pervades all the American tribes from Hudson's Bay to Terra del Fuego. It is equally well known, that the researches of HUMBOLDT and GALLATIN have demonstrated a conformity not less remarkable in the language and artistic tendencies of these numerous and widely-scattered aborigines. Dr. MORTON divides the American race into two great families — the Toltecan, possessing a very ancient demi-civilization, and the Barbarous tribes. The latter, he sub-divides into the Appalachian, Brazilian, Patagonian, and Fuegian branches. The Appalachians are characterized by a rounded head; large, salient, and aquiline nose; dark-brown and very slightly oblique eyes; large and straight mouth, with nearly vertical teeth; the whole face triangular. The physical traits of the Brazilian group differ but little from those of the Appalachian. A larger and more expanded nose, and larger mouths and lips, seem to constitute the only difference. Tall statures, fine forms, and indomitable courage distinguish the Patagonian group. The Fuegians have large heads, broad faces, small eyes, clumsy bodies, large chests, and ill-shaped legs.

As the cranial type or standard representative of these American *Barbaroi*, I have selected the head of a Cotonay, or Black-foot chief,

Fig. 60.



COTONAY.

named the "Bloody Hand" (Fig. 60). It is from the upper Missouri, and was presented by J. J. Audubon, Esq. (No. 1227 of the Collection). The following extract from the *Crania Americana* will serve to give the reader a general idea of the cranial peculiarities of the American type, while a comparison with the subjoined figures will show how extensively this type has been distributed over our continent.

"After examining a great number of skulls, I find that the nations east of the Alleghany Mountains, together with the cognate tribes,

[256] Mémoires du Museum d'Histoire naturelle, t. iii.

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have the head more elongated than any other Americans. This remark applies especially to the great Lenapé stock, the Iroquois, and the Cherokees. To the west of the Mississippi, we again meet with the elongated head in the Mandans, Ricaras, Assinaboins, and some other tribes. Yet even in these instances, the *characteristic truncation of the occiput* is more or less obvious, while many nations east of the Rocky Mountains have the *rounded head* so characteristic of the race, as the Osages, Ottoes, Missouris, Dacotas, and numerous others. The same conformation is common in Florida; but some of these nations are evidently of the Toltecan family, as both their characters and traditions testify. The head of the Charibs, as well of the Antilles as of Terra Firma, are also naturally rounded; and we trace this character, so far as we have had opportunity for examination, through the nations east of the Andes, the Patagonians and the tribes of Chili. In fact, the *flatness of the occipital portion of the cranium* will probably be found to characterize a greater or less number of individuals in every existing tribe, from Terra del Fuego to the Canadas.[257] If these skulls be viewed from behind, we observe the occipital outline to be moderately curved outwards, wide at the

[257] It is pleasing to observe the unabated energy and zeal which the Professor of History and English Literature in University College, Toronto (already, as we have seen, celebrated for his archæological and ethnological researches in Scotland), still bestows upon his favorite study, in his new Canadian home. In a recent No. of the *Canadian Journal of Industry, Science, and Art* (November, 1856), of which he is the editorial head, the reader will find, from his pen, an interesting account of the *Discovery of Indian Remains in Canada West.* From this article I select the following paragraph, from its bearing upon the subject-matter presented in the text above: "No indications," says Prof. W., "have yet been noticed of a race in Canada corresponding to the Brachy-cephalic or square-headed mound-builders of the Mississippi, although such an approximation to that type undoubtedly prevails throughout this continent as, to a considerable extent, to bear out the conclusions of Dr. Morton, that a conformity of organization is obvious in the osteological structure of the whole American population, extending from the southern Fuegians, to the Indians skirting the Arctic Esquimaux. But such an approximation — and it is unquestionably no more — still leaves open many important questions relative to the area and race of the ancient mound-builders. On our northern shores of the great chain of lakes, crania of the more recent brachy-cephalic type have unquestionably been repeatedly found in comparatively modern native graves. Such, however, are the exception, and not the rule. The prevailing type, so far as my present experience extends, presents a very marked predominance of the longitudinal over the parietal and vertical diameter; while, even in the exceptional cases, the brachy-cephalic characteristics fall far short of those so markedly distinguishing the ancient crania, the distinctive features of which some observers have affirmed them to exhibit. In point of archæological evidence of ancient occupation, moreover, our northern sepulchral disclosures have hitherto revealed little that is calculated to add to our definite knowledge of the past, although the traces of ancient metallurgic arts suggest the probability of such evidence being found. The discovery of distinct proofs of the ancient extension of the race of the mound-builders into these northern and eastern regions, would furnish an addition of no slight importance to our materials for the primeval history of the Great Lake districts embracing Canada West."

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occipital protuberances, and full from those points to the opening of the ear. From the parietal protuberances there is a slightly curved slope to the vertex, producing a conical, or rather a wedge-shaped outline. HUMBOLDT has remarked, that 'there is no race on the globe in which the frontal bone is so much pressed backwards, and in which the forehead is so small.'[258] It must be observed, however, that the lowness of the forehead is in some measure compensated by its breadth, which is generally considerable. The flat forehead was esteemed beautiful among a vast number of tribes; and this fancy has been the principal incentive to the moulding of the head by art. Although the orbital cavities are large, the eyes themselves are smaller than in Europeans; and FRESIER asserts that the Puelché women he saw in Chili were absolutely hideous from the smallness of their eyes. The latter are also deeply set or sunk in the head; an appearance which is much increased by the low and prominent frontal ridges. . . . . What has been said of the bony orbits obtains with surprising uniformity; thus the superior margin is but slightly curved, while the inferior may be compared to an inverted arch. The lateral margins form curves rather mediate between the other two. This fact is the more interesting on account of the contrast it presents to the oblong orbit and parallel margins observable in the Malay. The latter conformation, however, is sometimes seen in the American, but chiefly in those skulls which have been altered by pressure to the frontal bone.—The nose constitutes one of the strongest and most uniform features of the Indian countenance; it mostly presents the decidedly arched form, without being strictly aquiline, and still more rarely flat.—The nasal cavities correspond to the size of the nose itself; and the remarkable acuteness of smell possessed by the American Indian has been attributed to the great expansion of the olfactory membrane. But the perfection of this sense, like that of hearing among the same people, is perhaps chiefly to be attributed to its constant and assiduous cultivation. The cheek-bones are large and prominent, and incline rapidly towards the lower jaw, giving the face an angular conformation. The upper jaw is often elongated, and much inclined outwards, but the teeth are for the most part vertical. The lower jaw is broad and ponderous, and truncated in front. The teeth are also very large, and seldom decayed; for among the many that remain in the skulls in my possession, very few present any marks of disease,

Fig. 61.

Head of the famous Sac chief, "BLACK HAWK."

[258] Monuments, t. I., p. 158.

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although they are often much worn down by attrition in the mastication of hard substances."

The Peruvian skull "is remarkable for its small size, and also, as just observed, for its quadrangular form. The occiput is greatly compressed, sometimes absolutely vertical; the sides are swelled out, and the forehead is somewhat elevated, but very retreating. The capacity of the cavity of the cranium, derived from the measurement of many specimens of the pure Inca race, shows a singularly small cerebral mass for an intelligent and civilized people. These heads are remarkable not only for their smallness, but also for their irregularity; for in the whole series in my possession, there is but one that can be called symmetrical. This irregularity chiefly consists in the greater projection of the occiput to one side than the other, showing in some instances a surprising degree of deformity. As this condition is as often observed on one side as the other, it is not to be attributed to the intentional application of mechanical force; on the contrary, it is to a certain degree common to the whole American race, and is sometimes no doubt increased by the manner in which the child is placed in the cradle."

From the preceding paragraph, it will be seen that Dr. MORTON considered the asymmetry of the Peruvian head to be congenital. In a subsequent essay he concluded that this deformity was the result of pressure artificially applied.[259] According to RIVERO and TSCHUDI, this deformity can be demonstrated upon the mummied fœtus. It must, therefore, be regarded as the natural form of a primeval race. This opinion is confirmed by the following extract from a letter of Dr. LUND, of Copenhagen, addressed to the Historical and Geographical Society of Brazil, concerning some organic remains discovered in the calcareous rocks in the Province of Minas Geraes, Brazil.

"We know," says he, "that the human figures found sculptured in the ancient monuments of Mexico represent, for the greater part, a singular conformation of head, — being entirely without forehead — the cranium retreating backwards immediately above the superciliary arch. This anomaly, which is generally attributed to an artificial disfiguration of the head, or the taste of the artist, now admits a more natural explanation; it being now proved, by these authentic documents, that there really existed on this continent a race exhibiting this anomalous conformation."[260]

Many curious facts might be mentioned in this connection, showing that not a few of the artificial deformations of the head witnessed in certain races of men, are in reality imitations of once natural types.

"We know," says AMEDÉE THIERRY, "that the Huns used artificial means for giving Mongolian physiognomy to their children; they flattened the nose with firmly-strained

[259] Ethnography and Archæology of the American Aborigines. Silliman's Journal, November, 1846.

[260] This letter was translated by Lieut. Strain, U. S. N., and a synopsis of it published in the Proceedings of the Philada. Acad. Nat. Sciences, February, 1844.

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linen ribbons, and pressed the head to make the cheek-bones projecting. What could be the reasonable cause of this barbarous custom, if not the effort to approach a form, which, among the Huns, was held in greater regard — in a word, the aristocratic race? The purpose quoted by the Roman authors, to get the helmet better fixed on the head, is scarcely credible. It seems more probable, that when the Mongols were masters of the Huns, the Mongolian physiognomy was the prize attached to aristocratic distinctions; they consequently tried to approach this form, and considered it an honor thus to deform themselves, in order to resemble the reigning nation. This is most likely the cause of those unnatural deformations which historical writers so particularly describe."[261]

This opinion is also entertained by Profs. RETZIUS[262] and ESCHRICHT.[263] ZEUNE thus expresses his views upon this interesting subject:

"Though some naturalists presume that the flatness of the Huanca skull and the height of the Natchez skull are produced by artificial pressure when young, yet CAMPER contends against this idea, on page 37 of his 'Natural Difference in Faces,' translated by SÖMMERING, as does also CATLIN in his 'North American Indians,' and I am of the opinion that if there did not already exist a disposition to these forms in nature, the different nations could never have conceived the idea of carrying it to extremes."

The following extract from a letter addressed to Dr. J. H. B. MCCLELLAN, by Mr. GEORGE GIBBS, Indian Agent, dated Fort Vancouver, Oregon, December 17, 1855, will be read with interest in this connection:

"Let me point out to you one thing to be noted as regards skulls from this part of the country, which was brought to my notice by an article in Schoolcraft's book. I forget by whom. Among ten figures given, are Chinook skulls *unflattened*. Skulls from the region where that practice prevails, which are in the natural state, are those of slaves, and though possibly born among the Chinooks, or other adjacent tribes, are of alien races. The characteristics must not be assumed therefore from these. The practice prevails, generally, from the mouth of the Columbia to the Dalles, about 180 miles, and from the Straits of Fuca on the north to Coos Bay, between the 42d and 43d parallel south. Northward of the Straits it diminishes gradually to a mere slight compression, finally confined to women, and abandoned entirely north of Milbank Sound. So east of the Cascade Mountains, it dies out in like manner. Slaves are usually brought from the south — I should rather say were, for the foreign slave trade has ceased, though not the domestic (I am not talking of home politics) — and the Klamath and Shaste tribes of California probably furnished many for this country, while captives from here were taken still north, and from Puget's Sound as far as the Russian possessions. The children of slaves were not allowed to flatten the skull, and therefore these round heads indicate, not the liberty-loving Puritan of the west, but the serf. I mention this, because in minute comparisons it is proper to take all precautions to insure genuineness. Skulls taken from large cemeteries, or from sepulchres of whatever form erected with care, may be deemed authentic, saving always the chance of intermarriage with distinct tribes, which is usual, because the bodies of slaves are left neglected in the woods; the Chinooks, for instance, preferring to buy wives from the Chihalis or Cowlitz, tribes of Sehlish origin. If I get time to finish my general report this winter, you will find

[261] Quoted by Prof. RETZIUS from Burckhardt's German translation of Thierry's work, "Attila Schilderungen aus der Geschichte des fünften Jahrhunderts, Leipzig, 1852." See a paper "On artificially formed Skulls from the Ancient World," by Prof. Retzius, in Proceedings of Philada. Acad. Nat. Sciences, for September, 1855.

[262] Phrénologien bedömd från en Anatomisk ståndpunkt. Af Prof. A Retzius.

[263] Angaaende Betydningen af Hjerneskallens og hele Hovedets Formforskjellighed. (Skand. Naturf. Sällsk. Fordhandl.)

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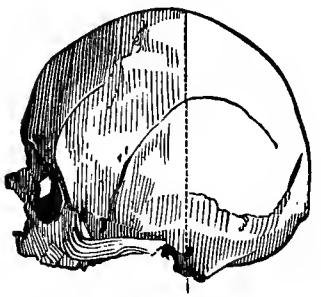
further details, supposing always you are not tired of these. I have never been able to get an authenticated skull of a white half-breed. These also are never flattened, the pride of intercourse in the mother preserving to the child the attributes of the superior race." [264]

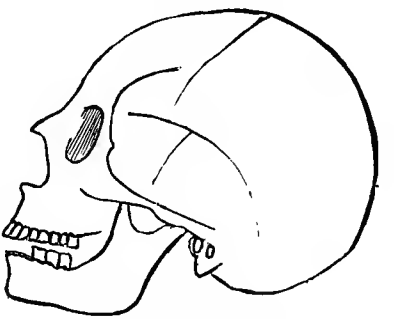
Figs. 62, 63, 64, and 65, following, represent, respectively, the head of a Creek chief, in the possession of Dr. NOTT, of Mobile; the skull of a Sioux or Dacota warrior (No. 605); the skull of a Seminole

Fig. 62.



CREEK CHIEF.

Fig. 63.

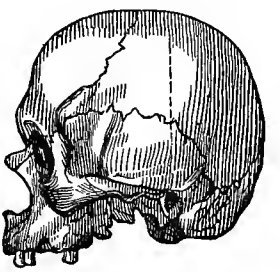


DACOTA WARRIOR.

Fig. 64.

SEMINOLE WARRIOR.

Fig. 65.



ANCIENT MOUND-BUILDER.

Fig. 66.

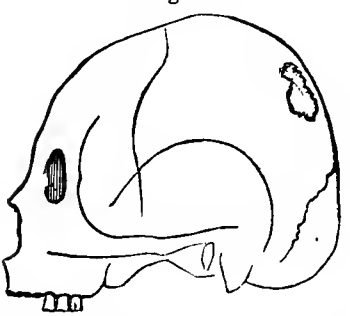


Fig. 67.

PERUVIANS.

[264] See Proceedings of Philada. Acad. Nat. Sciences, March, 1856.

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warrior, slain at the battle of St. Josephs, in June, 1836 (No. 604); and the cranium of an ancient mound-builder (No. 1512), "found by Dr. DAVIS and Mr. SQUIER, in a mound in the Scioto Valley, Ohio, and described and figured by them in their *Ancient Monuments of the Mississippi Valley*, Pl. XLVII. and XLVIII.

The general form of the Peruvian skull is shown in Figs. 66 and 67 (*retro*).

The cranial types of Oceanica still remain to be discussed. With my limits already overswelled, I can but allude in the briefest manner to a few of the more important and striking skull-forms of this vast region, which has been anthropologically divided by JACQUINOT[265] into three great sections, viz.: 1. *Australia*, comprehending New Holland and Tasmania, or Van Diemen's Land; 2. *Polynesia*, embracing Micronesia and Melanesia, or, in other words, the islands of the Pacific Ocean, from the west coast of America to the Philippines and the Moluccas; and 3. *Malaysia*, comprising the Sunda, Philippine, and Molucca islands — the East Indies, or Indian Archipelago of the geographer.

According to PRICHARD, the numerous types of this immense region differ decidedly from each other, and also from those of the old and new world. JACQUINOT, however, affirms that the Polynesians do not differ sensibly from the American tribes.[266] BLANCHARD also speaks of "une grand analogie entre les peuples de la Polynésie et ceux de l'Amérique."[267] The correctness of this opinion Dr. NOTT positively denies, resting his negation upon a comparison of the skulls of the two races.[268] BLUMENBACH, DESMOULINS, and PICKERING assure us that the Polynesians belong to the Malay stock. Such an affiliation CRAWFURD clearly disproves.

JACQUINOT thus characterizes the Polynesian race: "Skin tawny, of a yellow color washed with bistre, more or less deep; very light in some, almost brown in others. Hair black, bushy, smooth, and sometimes frizzled. Eyes black, more split than open, not at all oblique. Nose long, straight, sometimes aquiline or straight; nostrils large and open, which makes it sometimes look flat, especially in women and children; in them, also, the lips, which in general are long and curved, are slightly prominent. Teeth fine, incisors

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[265] Voyage au Pole Sud, Zoologie, t. 2. Observations sur les Races Humaines de l'Amérique Méridionale et de l'Océanie.

[266] Op. cit.

[267] Voyage au Pole Sud, Anthropologie; Texte, p. 68. In the same paragraph, however, he says, "Nous pensons qu'il existe entre eux des caractères distinctifs, des caractères appréciables dans la forme du crâne."

[268] Types of Mankind, p. 438.

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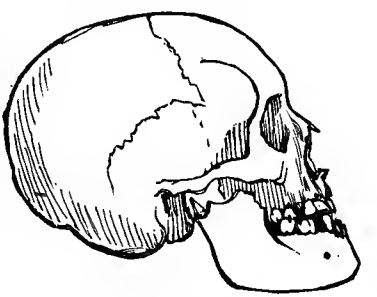
large. Cheek-bones large, not salient; enlarging the face, which, nevertheless, is longer than wide."

This description is confirmed by most of the travellers who have visited the region under consideration. "All voyagers, however," says MORTON, "have noticed the great disparity that exists between the plebeians and the aristocratic class, as respects stature, features, and complexion. The privileged order is much fairer and much taller than the other; their heads are better developed, and their profile shows more regular features, including the arched and aquiline nose."[269]

A slight examination of the skulls in the Mortonian Collection representing this race, is sufficient to show, that while a general resemblance of cranial forms prevails throughout this region, yet considerable variations in type can be readily pointed out. A glance at the beautiful plates of DUMOUTIER'S "Atlas" serves to confirm this conclusion.

The head of a Kanaka, of the Sandwich Islands, —a race of people "the most docile and imitative, and perhaps also the most easy of instruction, of all the Polynesians"— appears to me to afford a good idea of the general cranial type of Polynesia. The head (Fig. 68) is elongated; the forehead recedent; the face long and oval; the breadth between the orbits considerable; the alveolar margin of the superior maxillary slightly prominent; the lower jaw large and regularly rounded. The breadth and shortness of the base and the peculiar flatness of the sub-occipital region give to the whole head an elongated or drawn-out appearance.

Fig. 68.



SANDWICH ISLANDER.

This peculiarity of the basi-occipital portion of the head is still better shown in Figs. 69 and 70, on next page, which represent the cranium of a Sandwich Islander, who died in the Marine Hospital at Mobile, while under the care of Drs. Levert and Mastin. "This skull," says Dr. NOTT, "was presented to AGASSIZ and myself for examination, without being apprised of its history. Notwithstanding there was something in its form which appeared unnatural, yet it resembled, more than any other race, the Polynesian; and as such we did not hesitate to class it. It turned out afterwards that we were right; and that our embarrassment had been produced by an

[269] Crania Americana, p. 59.

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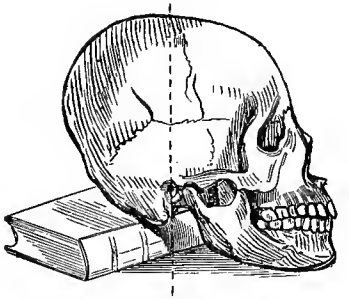
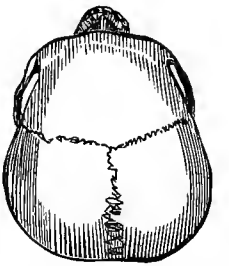
Fig. 69.



SANDWICH ISLANDER.

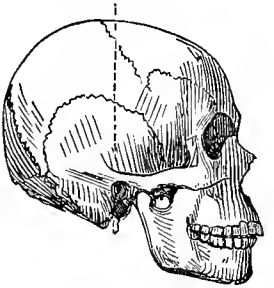
Fig. 70.



VERTICAL VIEW OF SAME.

artificial flattening of the occiput; which process the Islander, while at the hospital, had told Drs. Levert and Mastin, was habitual in his family. The profile view betrays less protuberance of brain behind, and the vertical view more compression of occiput, than belongs generally to his race; but still there remains enough of cranial characteristics to mark his Polynesian origin; even were not the man's history preserved, to attest the gross depravity of his animal propensities."

Fig. 71.

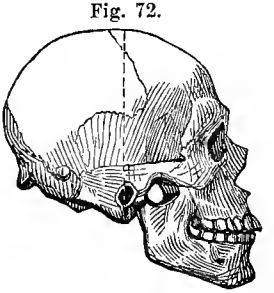


SANDWICH ISLANDER.

Fig. 71, reduced from Plate 32 of Dumoutier's Atlas, represents the head of a native of Mawi, one of the small islands of the Sandwich group. This head appears to me to possess a somewhat higher development than is seen in the two preceding figures.

The skull of a cannibal, in the Mortonian Collection (No. 1531), from Christina Island —one of the Marquesas — exhibits a narrow, dolicho-cephalic form; the frontal region flat and narrow; the posterior region broad and ponderous; the face massive and roughly marked; the superior maxilla more everted than in the Sandwich Islander; altogether a low and brutal form, though the internal capacity is as high as 90.5 cubic inches. This head resembles in several respects the skull of a man of the Tais tribe (Nukahiva), figured by Dumoutier on his 29th Plate. It differs from the latter in having a somewhat retracted lower jaw; a feature which approximates it to the Malay head figured below. Fig. 72 represents one of a collection of crania brought by DUMOUTIER from the

Fig. 72.



NUKAHIVAN.

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ancient ossuaries in the Island of Nukahiva. BLANCHARD has carefully studied this collection, and also a series of Marquesan crania in the "Galerie Anthropologique du Muséum d'Histoire Naturelle." He informs us that—

"Comparativement aux crânes des Européens, ceux des naturels des îles Marquises se montrent beaucoup plus rétrécis et plus arrondis vers le sommet. Le frontal fuit non-seulement en arrière, mais aussi sur les côtés. Cet os est ainsi arrondi et n'offre en aucune façon ce méplat général qu'on observe ordinairement dans les têtes des Européens, avec des nuances à la vérité très-notables.

"En mesurant la hauteur du crâne des Noukahiviens du bord inférieur du maxillaire supérieur à l'angle de la dernière molaire ou depuis l'apophyse mastoïdienne jusqu'au bord médian du coronal à son insertion avec les pariétaux, et comparant cette mesure avec celle de l'épaisseur du crâne prise de la partie la plus avancée du frontal à l'origine de l'occipital, nous avons trouvé chez plusieurs sujets que cette hauteur était à peine inférieure à l'épaisseur. Chez un plus grand nombre cependant, nous avons trouvé la largeur du crâne, considéré par le côté, d'environ un huitième supérieure à la hauteur, et même un peu plus, chez deux ou trois individus. De ce côté il y a donc des différences individuelles assez prononcées.

"Le coronal dans sa plus grande largeur, prise d'une suture à l'autre, s'est montré d'une étendue sensiblement moindre avec de très-légères variations, que la hauteur prise de l'origine des os nasaux à la suture médiane des pariétaux. Un crâne de femme seul nous a fourni ces deux mesures égales.

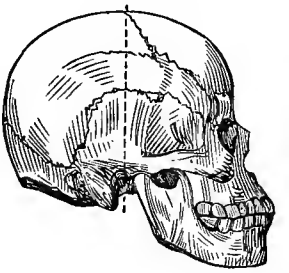
"La distance de l'apophyse mastoïdienne à l'extrémité de la mâchoire supérieure s'est trouvée, chez tous les crânes de Kanaques, égale à l'espace compris entre le bord externe des deux os jugaux pris à leur insertion avec l'os frontal.

"Dans ce type enfin on constate encore une proéminence bien prononcée des apophyses zygomatiques une forte saillie des os maxillaires et une forme ovalaire dans la base du crâne, l'occipital étant sensiblement atténué en arrière.

"Les têtes de femmes présentent les mêmes caractères que les têtes d'hommes, les mêmes rapports entre les proportions de la boîte crânienne, de l'os frontal, etc., avec les os de la face un peu moins saillants."

In Fig. 73 (skull of a Taitian woman), the reader has before him the cranial type of the Society Islands.

Fig. 73.



TAITIAN.

"Nous remarquons," says BLANCHARD, "la même forme générale de la tête que chez les naturels des îles Marquises; c'est également une forme pyramidale, plus prononcée encore que nous ne l'avons vu partout ailleurs dans la tête d'homme qui porte sur la planche les numéros 1 et 2; mais ici l'allongement général de cette tête nous fait croire à une particularité tout à fait individuelle. Mêmes rapports entre la hauteur et la longueur du crâne que chez les Kanaques, et cependant, vue par le profil, la tête nous paraît plus arrondie chez les Taïtiens, les pariétaux nous semblent moins déprimés en arrière. Sous le rapport des proportions de l'os frontal, comme chez les précédents, nous avons constaté un peu moins de largeur que de hauteur. La saillie des os maxillaires nous paraît aussi plus prononcée chez le Taïtien que chez le Noukahivien. Ceci est très-marqué dans la tête de femme portant sur la planche XXX les numéros 3 et 4. Si l'on mesure la longueur comprise entre l'apophyse mastoïdienne et l'extrémité du maxillaire supérieur, on verra, en portant cette mesure sur l'espace compris

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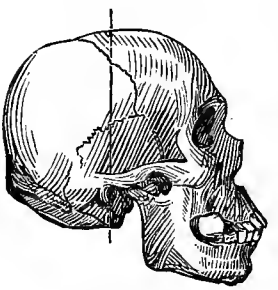
entre les os jugaux à leur insertion, qu'elle est manifestement supérieure à celle que nous avons reconnue sur de nombreux crânes de naturels des îles Marquises. Cette différence est aussi très-sensible dans le crâne d'enfant qui, sur la même planche, porte les numéros 5 et 6."

DUMOUTIER figures, in his beautiful Atlas, several crania from Tongataboo and Vavao, of which I select one (Fig. 74), that of a Tonga Islander, to represent the skull-type of the Friendly Islands. According to BLANCHARD, these crania resemble, in their general form or type, those of the Mangaréviens, Taitians, and other Polynesians. He assures us that the proportions of the calvaria, the prominence of the zygomatic arches, and the maxillary bones, appear to be the same in all. Viewed in front, the head of the Tongans partakes of the pyramidal form more decidedly than the skulls of the other Polynesians. The coronal region is also a little longer.

Fig. 74.

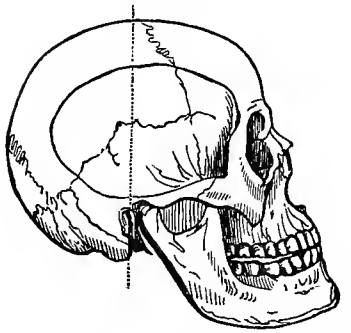


TONGA ISLANDER.

"Si le caractère," says BLANCHARD, "observé ici sur quelques individus appartient à la plus grande masse des habitants de l'archipel des Amis, il deviendra évident qu'il existe un caractère anthropologique pour distinguer les Tongans de leurs voisins de l'est, et que ce caractère traduit une supériorité relative d'intelligence."

A higher form of the skull than the Tongan, is seen in Fig. 75, which represents the head of a Feejee Islander, in the Collection of the Royal College of Surgeons, London. It is thus described by MARTIN:

Fig. 75.



FEEJEE ISLANDER.

"The forehead is small, and laterally compressed, the space occupied by the temporal muscle being quite flat; but the centre of each parietal bone is boldly and abruptly convex; the top of the head, or coronal arch, is ridge-like, with a slope downward on each side; the cheek-bones are large and deep; the upper margin of the orbits is smooth; and the frontal sinuses are but slightly indicated; the orbits are large, and rather circular; the nasal bones are short and depressed, and the nasal orifice is of remarkable width and extent, as is that of the posterior nares also; the alveolar ridge of the superior maxillary bone projects moderately; the lower jaw is very thick and deep; the posterior angle is rounded, and the base of the ramus arched, so that the posterior angle and the chin do not touch a plane; the basilar process of the occipital bone is less inclined upward than in five or six European skulls examined at the same time: the coronal suture only impinges on the sphenoid bone by a quarter of an inch. From the middle of the occipital condyle to the alveolar ridge between the two middle incisors, the measurement is four inches and three-eighths; the posterior development of the cranium, beyond the middle of the condyle, three inches and three-eighths."

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Fig. 76 represents the head of a native of Malicolo, one of the New Hebrides.

Fig. 76.

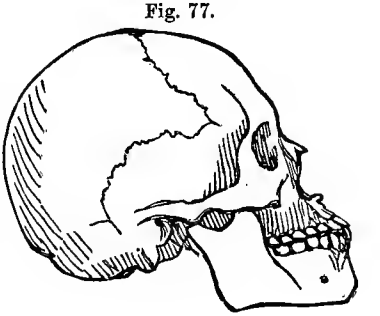
Malicolo.

As we journey westward toward Australia, we find the human cranial type changing again in the inhabitants of the Vitian Archipelago. A glance at the figures on plate 33 of Dumoutier's Atlas, shows at once that the Vitian skulls differ to some extent from those of the other Polynesian races already noticed. The cranium of the former is more elongated posteriorly, and the maxillary bones are more salient; the forehead is lower and more recedent, so that, viewed in front, the head has less of the pyramidal form. Blanchard has pointed out considerable differences in the dimensions of the Vitian, as compared with the other Polynesian skulls. He also compares together African and Polynesian crania, and observes that if these two great groups resemble each other in certain characters, they differ not the less remarkably in others.

It is obviously impossible for me, in this place, to give an elaborate description of the various skull-forms of the Polynesian realm. Such a description, in the hands of Blanchard, has already grown into an octavo volume of nearly three hundred pages. Let it suffice, therefore, to say, that the traveller, as he visits in succession the numerous groups of islands composing the Polynesian realm, is constantly confronted with interesting and instructive modifications of the fundamental type of this realm.

The Malay conformation next claims our attention. From the heads of this race in the Mortonian Collection, I select No. 47, as the representative of this widely-diffused and peculiar type.

Fig. 77.



Malay.

"The skull of the Malay" (Fig. 77), says Morton, "presents the following characters: the forehead is low, moderately prominent, and arched; the occiput is much compressed, and often projecting at its upper and lateral parts; the orbits are oblique, oblong, and remarkably quadrangular, the upper and lower margins being almost straight and parallel; the nasal bones are broad and flattened, or even concave; the cheek-bones are high and expanded; the jaws are greatly projected; and the upper jaw, together with the teeth, is much inclined outwards, and often nearly horizontal. The teeth are by nature remarkably fine, but are almost uniformly filed away in front, to enable them to imbibe the color of the betel-nut, which renders them black and unsightly. — The facial angle is less than in the Mongol and Chinese; for the average, derived from a measurement of thirteen perfect skulls in my possession, gives about seventy-three degrees." [270]

[270] Crania Americana, p. 56.

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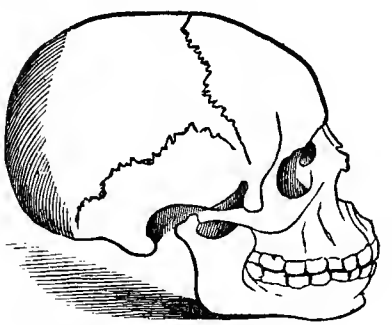
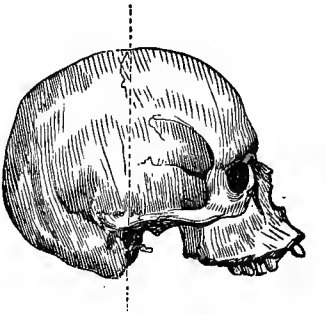
The exceedingly low and degraded Australian type is shown in the following engravings. Fig. 78 (No. 1327 of the Collection) represents the skull of a native of Port St. Philip, New South Wales. "This skull," says MORTON, "is the nearest approach to the orang type that I have seen." It is a truly animal head. The forehead is exceedingly flat and recedent, while the prognathism of the superior maxillary almost degenerates into a muzzle. The alveolar arch,

Fig. 78.



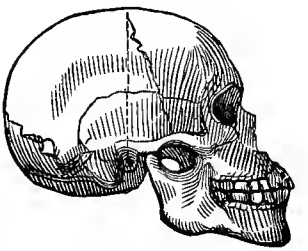
AUSTRALIAN OF PORT ST. PHILIP.

Fig. 79.



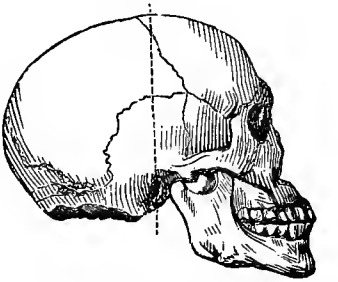
AUSTRALIAN.

Fig. 80.



NEW HOLLANDER.

Fig. 81.



NATIVE OF TIMOR.

instead of being round or oval in outline, is nearly square. The whole head is elongated and depressed along the coronal region, the basis cranii flat, and the mastoid processes very large and roughly formed. The immense orbits are overhung by ponderous superciliary ridges. This latter feature is still more evident in No. 1451 of the Collection, which, though varying somewhat in type, presents in general the same brutal appearance. Fig. 79, from PRICHARD'S "Researches," represents

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the skull of an Australian savage, which is in the museum of the College of Surgeons. It somewhat resembles Fig. 54 in its general form. The longitudinal ridge running from the forehead to the occiput, which is frequently observed in Australian skulls, is conspicuous in this. The ridge formed by the frontal sinuses is likewise prominent, and there is a deep notch over the nasal processes of the frontal bone. These characters are very strongly marked in the skulls of the Oceanic nations, as in those of the New Zealanders and Taitians.[271] Figs. 80 and 81 — from DUMOUTIER'S "Atlas" — represent respectively a native of *Baie Raffle*, on the coast of New Holland, and a native of Amnoubang, in the Isle of Timor.

According to Capt. WILKES, the "cast of the (Australian) face is between the African and the Malay; the forehead unusually narrow and high; the eyes small, black, and deep-set; the nose much depressed at the upper part, between the eyes, and widened at the base, which is done in infancy by the mother, the natural shape being of an aquiline form; the cheek-bones are high, the mouth large, and furnished with strong, well-set teeth; the chin frequently retreats; the neck is thin and short."

"The general characters of the Australian skull," writes MARTIN, "consist in their narrowness, or lateral compression, and in the ridge-like form of the coronal arch; the sides of which, however, are less roof-like, or flattened, than those of the Tasmanian skull. . . . The superciliary ridge projects greatly, giving a scowling expression to the orbits, and reminding us of some of the larger Apes; the nasal bones, which are exceedingly short and depressed, sink abruptly, forming a notch at their union with the frontal bone, which projects over them; the forehead is low and retreating; and the external orbitary process of the temporal bone is very bold and projecting, while the space occupied by the temporal muscle is strongly marked; the orbits are irregularly quadrate; the cheek-bones are prominent; the face is flat, and seems as if crushed below the frontal bone; the external nasal orifice, and that of the posterior nares, are very ample; the coronal suture terminates as in the skull of the Feejee Islander; the lower jaw is more acute at its angle than in the skull just alluded to, but it is arched upward at the chin."[272]

In conclusion, I place before the reader six figures, representing Tasmanian, New-Guinean, and Alforian skulls. They are taken from the works of DU PERRY, PRICHARD, MARTIN, and DUMOUTIER, and are introduced here, not only to complete our survey of cranial

[271] Op. cit., Vol. I., p. 299.

[272] Man and Monkeys, p. 312.

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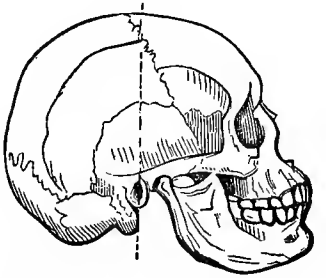
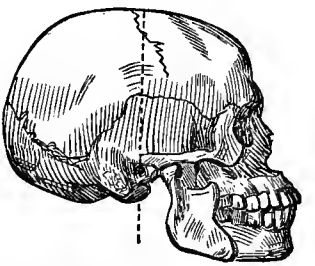
forms, but also to exhibit a few of those inferior types through which the human family, in obedience to a grand and deeply underlying law of organic unity, seeks to connect itself with the great animal series of which it is the undoubted head and front.

Fig. 82.



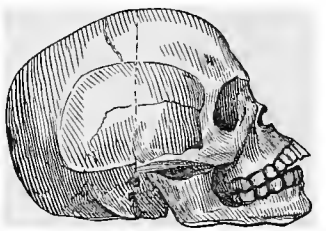
TASMANIAN, from Western Coast of Van Diemen's Land. (Royal College of Surgeons, London.)

Fig. 83.



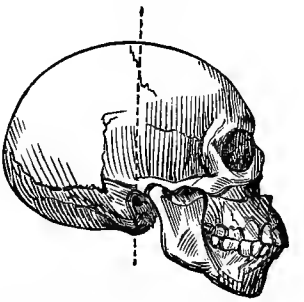
TASMANIAN (Dumoutier's Atlas).

Fig. 84.



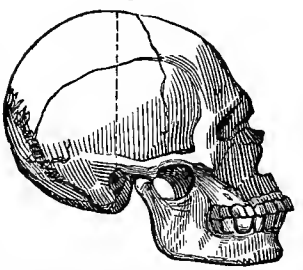
TASMANIAN (Prichard's Researches).

Fig. 85.



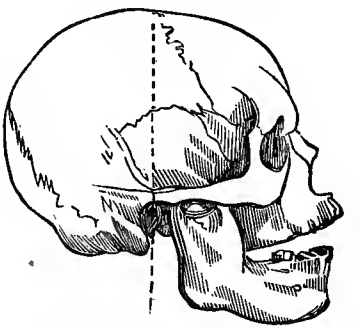
TASMANIAN (Dumoutier's Atlas).

Fig. 86.



NEW GUINEAN (Dumoutier's Atlas).

Fig. 87.



ALFOUROU-ENDAMENE (Martin's Man and Monkeys).

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Here our rapid panoramic survey of the diversified cranial characteristics of the human family must terminate. In this survey, having no theory to establish or defend, I have carefully and impartially presented the facts as I have found them, for the most part, indelibly traced upon the specimens in the vast Mortonian Collection. Nor have I depended upon this Collection alone, as will appear from the frequent references to and quotations from the more important of the numerous works which constitute the literature of my subject. This method has been adopted, as affording the best idea of the past history, progress, and present condition of craniographic research, and its claims to be considered as one of the natural sciences. By such a procedure, moreover, the reader has gradually become acquainted, as it were, with the zealous and indefatigable workers in this field, whose names are intimately associated with many of the facts discussed in this essay. Feelings of professional pride prompt me, in this place, to refer particularly to two of these laborers, who, with careful hands, have materially assisted in building an Ethnologic edifice, whose fair proportions will yet delight and astonish the world. The researches of PRICHARD and MORTON constitute right noble columns guarding the entrance into this edifice. Recognizing, at an early period of their professional career, the scientific claims of medicine—claims seldom perceived by the mass—their expansive minds led them steadily onward, beyond the crowded middle-walks of their calling. Both were *physicians*, in the primitive sense of the word—medical naturalists, whose broad and comprehensive views shed a lustre over the healing art. There is a singular propriety in thus coupling the labors and lives of these two philosophers. Their patient, unresting industry and strong determinative will enabled them to prove conclusively to the world, as indeed Hunter and others had already done, that, to a considerable extent, scientific investigation is not only compatible with the active daily duties of the physician, but in reality, by inculcating close and accurate habits of observation, very often becomes a guarantee of success in the performance of those duties. As confirmatory of this, hear what their respective biographers have said of them: "Dr. Prichard applied himself," says Dr. Hodgkin, "with as much zeal to the practice, as he had done to the study of his profession. He established a dispensary. He became physician to some of the principal medical institutions of Bristol. *He had not only a large practice in his own neighborhood, but was often called to distant consultations.* Notwithstanding the engrossing nature of these occupations, he found time to prepare and deliver lectures

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on Physiology and Medicine, and wrote an essay on Fever, and one on Epilepsy, and subsequently a larger work on Nervous Diseases."[273] All this, it will be recollected, in addition to his laborious Researches into the Physical History of Mankind, upon which is based his fame as an Ethnologist. Of Dr. Morton, Prof. Chas. D. Meigs thus writes: "*His medical practice was increasing up to the time of his death.* He had the good sense and prudence to maintain his active and visible connection with his profession, while striving in the race for fame as a philosopher. He had early begun to make his now celebrated collection of crania, with great labor and toil, and inconvenient cost. He investigated organic remains: he explained problems in zoology and ethnology; *he diligently attended the sick;* he published valuable treatises on consumption, on the science of anatomy, and on the practice of physic. He served the city gratuitously, as physician to the Almshouse Hospital, and delivered courses of lectures at the Pennsylvania Medical College, where he was Professor of Anatomy. All these things were done by a man whose family was large, and chargeable upon his funds, derivable in chief from his exertions as a physician."[274] Such were the manifold and onerous duties amidst which Dr. Morton composed and published his two brilliant craniological works, and numerous detached papers on ethnography, hybridity, and allied subjects.

Though the lives of these two men present several interesting parallels, and though their labors were steadily directed towards the same great object, yet they sought that object through different channels of research. With laborious hands, Prichard gathered from the records of travel, and from numerous philological and archæological works in various languages, an immense mass of material, which he carefully and learnedly digested. With equal industry and perseverance, Morton gathered from the receptacles of the dead, all over the world, those bony records which he studied with such untiring zeal and discrimination. Prichard, the erudite scholar, gave to the natural history of man a philosophico-literary character; Morton, the philosophical naturalist, stamped it with the seal of the natural sciences. To the ethnological student, the published labors of these *savants* will long continue a shining and a guiding light; while the world at large cannot fail to find, in the history of their lives, noble lessons of the power of ceaseless and indefatigable labor.

Aware of the extreme caution necessary in arriving at conclusions in so grave a study as that which has just occupied our attention through so many pages, and knowing that every erroneous inference must either directly or indirectly retard the advancement of Ethno-

[273] Biographical Sketch, &c., Edinburgh New Philosophical Journal, Vol. XLVII. p. 205.
[274] Memoir, &c., read before Philada. Acad. Nat. Sciences, November 6, 1851.

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graphy, I have preferred, occasionally, to suggest what appeared to me a legitimate induction, rather than to pronounce positively and authoritatively upon the facts presented. In the same cautious manner, the following propositions are placed before the reader, as more or less clearly derivable from the foregoing facts and arguments.

1. That cranial characters constitute an enduring, natural, and therefore strictly reliable basis upon which to establish a true classification of the races of men.

2. That the value of such characters is determined by their constancy, rather than by their magnitude.

3. That these characters constitute, in the aggregate, typical forms of crania.

4. That historical and monumental records, and the remains found in ossuaries, mounds, &c., indicate a remarkable persistence of these forms.

5. That this persistence through time, as viewed from a zoological stand-point, renders it difficult, if indeed possible, to assign to the leading cranial types any other than specific values.

6. That, in the present state of our knowledge, however, we are by no means certain that such types were primitively distinct.[275] The historical period is too short to determine the question of *original* unity or diversity of cranial forms. Moreover, this question loses its importance in the presence of a still higher one—the original unity or diversity of *all* organic forms.

7. That diversity of cranial types does not *necessarily* imply diversity of origin. Neither do strong resemblances between such types infallibly indicate a common parentage. Such resemblances merely express similarity of position in the human series.[276]

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[275] "Those who have studied the natural history of man," says Prof. DRAPER, in his recent admirable work on the 'Conditions and Course of the Life of Man,' "have occupied themselves too completely with the idea of fixity in the aspect of human families, and have treated of them as though they were perfectly and definitely distinct, or in a condition of equilibrium. They have described them as they are found in the various countries of the globe, and since these descriptions remain correct during a long time, the general inference of an invariability has gathered strength, until some writers are to be found who suppose that there have been as many separate creations of man as there are races which can be distinguished from each other. We are perpetually mistaking the slow movements of Nature for absolute rest. We compound temporary equilibration with final equilibrium."

This paragraph I find in Chapter VII., which is as singularly unhappy in its craniological conclusions, as the leading idea of the work, though not novel, is grand and philosophical. If the above language of Dr. D. is meant to be applied to geological periods of time, it is probably correct; if it extends not beyond the historical epoch, it is without the support of facts.

[276] "S'il n'y a qu'une seule race muable," writes J. E. CORNAY (de Rochefort), "c'est-à-dire pouvant avoir des variétés, il n'y a eu à la genèse primitive qu'un seul père et qu'une seule mère *d'une* même espèce. S'il y a *plusieurs races immutables*, il y a eu à la genèse primitive *plusieurs espèces de pères et de mères*. Toute la question est donc renfermée dans la *mutabilité* ou dans *l'immutabilité* des races, pour arriver à la connaissance du nombre des

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8. That each well-marked cranial type admits of certain variations in its individual characters, which variations constitute divergent forms.

9. That these divergent forms must not be confounded with hybrid types. Both, it is true, are produced by modifications in the mode of action of the developing principle; in the former, however, these modifications depend upon climatic conditions, in the latter they result from race-amalgamation.

10. That reasons exist for considering some, at least, of the so-called artificial deformations as strictly natural types, representing very early humanitarian epochs.

11. That a regular system of gradation seems to underlie and harmonize the various cranial forms of the human family.

12. That these forms appear to be pre-represented or anticipated in the various types of skull exhibited by different genera and species of monkeys.

13. That if we regard artificial deformations as the forced imitations of once natural types, and upon this ground admit them in our systems of classification, as some writers have done, then the perplexing gaps which seem to break the animal chain by disparting man and monkeys—the group which stands nearest to man—will to a certain extent be filled intelligibly.

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espèces primitives." (*Eléménts de Morphologie Humaine*, 2de partie, p. 115; Paris, 1850.) The *general* immobility of race-characters and specific forms is pretty well determined for the historic period. But in this period a remarkable equilibrium of physical conditions has been maintained. In the ante-historic epoch, the question of the mobility or immobility of cranial, in common with all organic forms, must be studied over a wider time-latitude, and under altered physical circumstances. If now we recall the great physiological fact, that under the influence of the vital principle, organic matter assumes a definite, though infinitely diversified form (the organic cell and its developmental modifications), and that this form constitutes the medium through which all the active phenomena of life are manifested, and if we, furthermore, reflect upon the mass of evidence which strongly tends to correlate, if not, indeed, to identify the vital with the physical forces, then it will appear that the study of specific forms, when carried through great geological cycles, is, in reality, a study, not so much of parentage, as of the functional or dynamical energy of physical conditions. The question of what constitutes species is by no means *necessarily* connected with that of parentage. Naturalists, measuring nature by limited periods of time, have too often fallen into the error of regarding specific sameness as a mark of common origin. Very philosophically observes Dr. LEIDY: "Naturalists have not yet systematized that knowledge through which they practically estimate the value of characters determining a species. What may be viewed as distinct sub-genera by one, will be considered as only distinct species by another, and a third may view both as varieties or races. In the use of these words, or rather in the attempt to define them, we go too far when we associate them with the nature of the origin of the beings in question. We know nothing whatever in relation to the origin of living beings, and even we cannot positively deny that life connected with some form was not co-eternal with time, space, and matter, and that all living beings have not successively and divergingly ascended from the lowest types." (*Description of Remains of Extinct Mammalia.* Journal Acad. Nat. Sciences, N. S., iii. 167.)

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14. That typical forms of crania increase in number as we go from the poles to the equator.

15. That the lower forms are found in the regions of excessive cold and excessive heat; the higher occupying the middle temperate region.

16. That cranial forms are inseparably connected with the physics of the globe.

The entire arctic zone is characterized by a remarkable uniformity or sameness of climatic condition and animal distribution. The stunted plants exhibit but few specific forms; and where the cold is most intense and most prolonged, this uniformity is most evident. Here, also, the human cranial type is least varied. Bending his steps southward, and traversing the temperate Asio-European continent, the observant traveller becomes aware of a gradual increase in the light and heat of the sun; and accompanying this increase, he beholds a peculiar and much more diversified flora and fauna. At every step, organic forms multiply around him, and monotony slowly gives place to variety; a variety, moreover, in which a remarkable system of resemblance or representation is preserved. "The temperate zone," says Agassiz, "is not characterized, like the arctic, by one and the same fauna; it does not form, as the arctic does, one continuous zoological zone around the globe." And, again, he says: "The geographical distribution of animals in this zone, forms several closely connected, but distinct combinations." Now, we have already seen that the globular, cranial type of this region is more varied than the pyramidal form of the extreme North. The Kalmuck or true Mongolian, the Tartar, Chinese, Japanese, and Turkish types of skull are all, to a certain extent, related, and yet are all readily distinguishable from each other. Each of these groups, again, presents several cranial varieties. So, among the barbarous aborigines of North America, notwithstanding the general osteologic assimilation of their crania, important tribal distinctions can be readily pointed out. It is interesting also to remark, that in the Turkish area, we are to look for the traces of transition from the Mongolian to the European forms —a fact singularly in keeping with the statement of Agassiz, that the Caspian fauna partakes partly of the Asiatic, and partly of the European zoological character.

It is a general and very well-known fact—first noticed by Buffon —that the fauna and flora of the old world are not specifically identical with the fauna and flora of the new. Their relationship is manifested in an interesting system of representation, or as Schouw expresses it, of geographical repetition according to climate. To a certain extent, human cranial forms appear also to fall within the limits of this system. As far as my own opportunities for exami-

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nation have gone, I have not been able to find a single aboriginal American type of skull which, in all its essential details, could be regarded as strictly identical with any in Europe, Asia, Africa, or Australia. The closest approximation between the two hemispheres, in this respect, is to be found in the Arctic region; and it is precisely in this region that the organic species of the two worlds resemble each other most closely. The massive, heavy skulls of northern temperate Asia and Europe are represented in America by those of the Barbarous tribes — decidedly different, but allied forms. So the comparatively small-headed Peruvians represent the equally small-headed Hindoos, while the American Indian type, according to Lieut. Habersham, again repeats itself in a most curious manner in the Island of Formosa.

It would thus appear, that upon the same general principles, of which Humboldt availed himself in dividing the surface of the earth into isothermic zones, or that Latreille followed in laying down his insect-realms, or that guided Forbes in the construction of *homoiozoic* belts of marine life, the ethnographer may establish, with equal propriety, *homoiokephalic* zones or realms of men, whose limits, though far from being sharply defined, are nevertheless sufficiently well-marked to show that nature's idea of localization and representation appertains to man, as to all the numerous and varied forms of life.

When, at length, our traveller reaches the tropics, he there, under the calorific and luminous influence of a powerful sun, beholds animal and vegetable life revelling in a multiplicity of forms. Human cranial types constitute no exception to this statement. In the African and Polynesian regions of the sun, the races or tribes of men, differing from each other in physical characters, are, as we have already seen, quite numerous. The same appears to be true also, though in a less marked degree, in northern South America. Finally, then, in view of all these leading facts, whose details would here be obviously misplaced, may we not conclude that cranial forms are definitely related to geographical locality, and its attendant climatic conditions; and may we not, furthermore, suspect that the unity of such forms should be sought neither in a uniformity of structural plan, nor in the successive development of higher from lower types, nor even in the organic cell, the primordial expression of the animal and the plant, but in that pervading physical principle whose plastic energy attains its maximum in the regions overlying the thermometric equator, and under whose controlling influence all matter — both organic and inorganic — assumes a regular and definite form?

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CHAPTER IV.

ACCLIMATION; OR, THE COMPARATIVE INFLUENCE OF CLIMATE, ENDEMIC AND EPIDEMIC DISEASES, ON THE RACES OF MAN.

BY J. C. NOTT, M.D.

In the preceding chapters, man has been viewed from opposite stand-points; and each new group of facts would seem to lead more and more directly to the conclusion, that certain distinct types of the human family are as ancient and as permanent as the Faunas and Floras which surround them.

We propose, in the present chapter, to investigate the subject of *Acclimation;* that is to say, of Races, in their relations to Climate, Endemic and Epidemic Diseases; and if it should be made to appear that each type of mankind, like a *species* of animals or plants, has its appropriate climate or *station*, and that it cannot by any process, however gradual, or in any number of generations, become fully habituated to those of opposite character, another strong confirmation will be added to the conclusion above alluded to.

The study of the physical history of man is beset by numerous difficulties, such as embarrass no other department of Zoology. Man has not only a *physical*, but a *moral* nature; the latter forming an important element in the investigation, and exerting a powerful influence over his physical structure. Inasmuch as we are now seeking to ascertain all those agencies which can in any way modify the physical condition of individuals or races, we shall, for convenience, include, under the general term of *Climate*,[1] geographical

[1] This is a loose definition, but we have no word in our language sufficiently comprehensive to answer our purpose. The French employ the term *milieu*, which covers the ground fully. The *milieu* (middle) in which an animal or plant is placed, includes every modifying influence belonging to the locality. The reader will therefore excuse me for using an old word in a new and arbitrary sense.

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position, habits, social condition, moral influences; in short, every combination of circumstances that can change the constitution of man.

The subject of Climate may be divided, and treated under two distinct heads, viz.—*Physical* Climate and *Medical* Climate. The consideration of the former appertains more particularly to the naturalist, whose province it is to treat of botanical and zoological geography, or the geographical distribution of animals and plants. Followed out in all its bearings, this department has been made, by Prichard and others, to include the whole physical history of man, and to explain all the diversities of type seen in the human family. The latter, or Medical Climate, refers to climate in its effects on the body, whether in preventing, causing, or curing diseases; and it is this branch of the subject which will mainly engage our attention at present, although we shall be obliged incidentally to trench upon the other.

Our limits forbid the examination in detail, to any extent, of the effects of Physical Climate; but, fortunately, knowledge in this department has so greatly advanced of late years, as to permit us to pass over, as well settled among naturalists, certain points which formerly consumed a large share of time. It was long taught, for example, that types were constantly changing and new ones forming, under the influence of existing causes; but we may now assume, without the fear of contradiction from a *naturalist*, that, within historical times, no example can be adduced of the transformation of one type of man into another, or of the origination of a new type. Writers still living have boldly attributed to climate almost illimitable influence on man. Numerous citations have been given, from credulous travellers, showing examples of white men transformed by a tropical sun into negroes; of negroes blanched into Caucasians; of Jews changed into Hindoos, Africans, American Indians, and what not. In short, the whole human family has been derived (as well as all the animals of the earth) from Noah's ark, which landed on Mount Ararat some 4000 years ago.

Such crude ideas obstinately maintained their ground, in spite of science, until it was proven beyond dispute, from the venerable monuments of Egypt, that the races of men, of all colors, now seen around the Mediterranean, inhabited the same countries, with their present physical characteristics, fully 5000 years ago; that is, long before the birth of either Moses, Noah, or even Adam—were we to believe in the chronology of Archbishop Usher. Nor did these various races exist merely as scattered individuals in those early times, but as *nations*, warring with each other. Since these discove-

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ries, we hear, among the well informed, no more about the influence of existing climates in transforming races.[2]

No one who has studied the natural history of man will be disposed to deny the great modifying influence of both physical and moral causes; but the questions arise as to the nature and extent of the changes produced. Has any one type been transformed into another? or has a new one originated since the living types of the animal kingdom were called into existence?

That the modifying influence of climate is great, nay, quite as great, on man, as on many of the inferior animals, we possess the evidence around us every day in our cities. By way of illustration, the Jewish race might be cited, being the one most widely spread, the longest and most generally known. Whenever the word *Jew* is pronounced, a peculiar type is at once called up to the mind's eye; and wherever, in the four quarters of the globe, surrounded by other races, the descendants of Abraham are encountered, this type at once stands out in bold relief. In each one of the synagogues of our large cities (in the United States), may be seen congregated, every Saturday, Israelites from various nationalities of the earth. Nevertheless, although they differ notably in stature, form, complexion, hair, shape and size of head, presenting in fact infinite *varieties*, yet, when of pure Hebrew blood, they all revolve around a common type, which identifies their race.

It should be remarked, in passing, that the Jewish, though comparatively a pure race, is notwithstanding much adulterated by inter-marriages with Gentiles during all ages, from the time of Abraham to the present. It is true that we often see individuals worshipping at their shrines who are wanting in the true lineaments of the race; but this may be always explained by the admixture of foreign blood, or through conversions of other types to Judaism.[3] It has been clearly shown that the Jewish type can be followed up through the stream of time backward from the present day to the IV. Dynasty of Egypt (a period of more than 5000 years), where it stands face to face with that of the Egyptian and other races. This type, too, is abundantly and beautifully delineated amid the ruins of Nineveh and Babylon, back to ages coetaneous with the Hebrew monarchy.[4]

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[2] The unity party have been obliged, since these discoveries in Egypt, to abandon all scientific deductions, or reasoning from facts, and to fall back upon a *miraculous* transformation of one race into many; which metamorphosis is *supposed* to have occurred prior to the foundation of the Egyptian, Chinese, and Hindoo empires.

[3] See "*Types of Mankind*," Chap. IV., "Physical History of the Jews."

[4] Ibid. Also, LAYARD'S *Nineveh*.

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All races of men, like animals, possess a certain degree of constitutional pliability, which enables them to bear great changes of temperature or latitude; and those races that are indigenous to temperate climates, having a wide thermometrical range, support best the extremes of other latitudes, whether hot or cold. Hence such races might be regarded almost as cosmopolites. In accordance with this idea, the Jews, who were originally scattered between 30° and 40° north latitude (where they were subjected to considerable heat in summer and cold in winter), were already well prepared to become acclimated to far greater extremes of temperature in other latitudes. The inhabitants of the Arctic, also, as well as those of the Tropics, have a certain pliancy of constitution; but, while the Jew and other inhabitants of the middle latitudes may migrate 30 degrees south, or 30 degrees north, with comparative impunity, the Eskimau on the one extreme, or the Negro, Hindoo, and Malay on the other, have no power to withstand the vicissitudes of climate encountered in traversing the 70 degrees of latitude between Greenland and the equator. Each race has its prescribed salubrious limits. The fair races of Northern Europe, below the Arctic zone, of which the Anglo-Saxons are impure descendants, will serve as another illustration. These races are now scattered over most parts of the habitable globe; and, in many instances, they have undergone far greater physical changes than the Jews. The climates, for instance, of Jamaica, Louisiana, and India, are to them much more extreme than to the Jewish race. The Israelite may be recognized anywhere; but not so with the Scandinavian and his descendants in the tropics. The latter becomes tanned, emaciated, debilitated; his countenance, energy, everything undergoes a change: and were we not familiar, from daily observation, with these effects of climate upon northern races, we should not suspect the original ancestry of many of the present inhabitants of hot climates. In these cases we behold, not simply a healthful modification of the physical and intellectual man, but a positively *morbid degradation*. The pure white man carried into the tropic deteriorates both in mind and body; the average duration of his life is lessened; and, without fresh importations, his race would in time become extinct. When, however, his descendants are taken back to their native climes, they revert to the healthful standard of their original types: the latter may have been distorted, but can never be lost, except in death.

[This fact may be familiarly exemplified by the habits of English sojourners (*colonists* they cannot be termed) now scattered throughout Hindostàn and the Indian Archipelago, on both sides of Africa a few hundred miles north of the Cape, along the southern shores

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of the Mediterranean, in the West Indies, South America, and elsewhere. Such emigrants are, moreover, out of all proportion, athletic adults before quitting their birth-place; who set forth with the intention, and are ever cheered by the hope, of returning *home* the moment their ambition is realized. Few, notwithstanding, come back to their native land with constitutions unimpaired; but, in no cases do those English whose means are not absolutely insignificant, attempt to rear up their children in any of the above tropical regions. If they do so, parents mourn over the graves of lost offspring, or sigh on beholding the sickly appearance of the surviving: of the latter, an adult generation, especially amongst the females, suffering under hourly-increasing morbific influence, is destined to succumb far within the average limits of longevity that would have been accorded to them by a life-insurance actuary, had they grown up in Europe. On the contrary, every sacrifice is made, under the name of "education," to send them homeward, in order that they may become constitutionally *retempered*, before they are once more exposed to such deleterious intertropical influences. So true is this rule, that, on the authority of a friend of Mr. Gliddon's, Major General Bagnold, of the Hon. East India Company's Service —a veteran who now, with his family, in London, practically carries into effect half a century of Oriental experiences—we know that the oldest purely-English regiment in India, the "Bombay Tufts," notwithstanding that marriages with British females are encouraged, has never been able, from the time of Charles II. to the present hour, to rear, from births in the corps, *boys* enough to supply its drummers and fifers.

The same rule holds good with the Dutch in Batavia and other Indian islands. Their children, when of pure blood, in health are weakly; when *half-caste*, worse. Where, however, as frequently happens in our Gulf States, such half-caste is produced by the union of South (*dark*) Europeans with negresses or squaws, a hardier animal appears to be the result. Hear DESJOBERT:

"*Le Français s'acclimate-t-il? ses enfans s'élèvent-ils en Algérie?* We speak of Frenchmen, and not of those Spanish, Italian, and Maltese populations which, coming from a country more analogous in climate [and being in type *dark* races, also], bear better than our fellow-countrymen the influence of the African climate.

"Algerian colonists have always confounded, under the same name of *colony*, every establishment of Europeans out of Europe. They have not reflected that, in climates different from those of Europe, he [the European] labors but little in body. He more frequently commands, administrates, or follows mercantile pursuits in the *cities* [not in the country].

"French and English races labor in Canada, in the northern parts of the United States, and in New Holland; but, in the Southern States of the Union, at the Antilles, Guayanas,

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and the isles of Mauritius and Bourbon, it is the [exotic] *blacks* who work; in India, it is the *Hindoo*.

"Spaniards, it is true, do labor a little at Cuba and at Porto Rico. But they had inhabited, in Europe, a hotter climate than the French and English. [For the same reason, joined to their *dark* race, our white fishermen, in the bayous from Charleston, S. C., to Galveston, Texas, are the only men who, with comparative security, ply their vocation the whole year round; and they are *Spaniards, Portuguese, Maltese,* or else *mulattos.*] They work also a little in America, especially when the altitude of the soil makes up for the latitude of the country, as in Mexico and Peru; or when the climate is far more temperate, as in Buenos Ayres; and even then, this labor cannot be compared to the work performed in France and in England [and north of "Mason and Dixon's line"]. At the Philippines, it is the native that labors.

"The Dutchman works not out of Europe: at Java, it is the Malay; at Guyana, it is the black who labors.

"The Portuguese never labors in India. In Brazil and at Guyana it is the black who works for him;" [in Central America, it is the Carib, the *Toltecan* Indian, or the half-caste.][5]

In Egypt, no European nor Turk risks his own person as an agriculturist: the labor is performed there, as in Mesopotamia, by the indigenous *Fellàh*. At Madagascar the Frenchman, as in Sierra Leone the Englishman, dies off if he attempts it. In Algeria, the French are beginning to find out that, unless the Arab or the Kabyle will plough the fields for them, *colonization* is hopeless.[6] And, lastly, were not this fact of the non-acclimation of white races, a few degrees north and south of the equinoctial line, now recognized by experience, why should *Coolies* from India and Malayana, as well as *Chinese* "apprentices," be eagerly contracted for at Bourbon, the Mauritius, the West Indies, and in Southern America?

The truth of these propositions will be investigated hereinafter.]

The negro, too, obeys the law of climate. Unlike the white man,

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[5] DESJOBERT, *L'Algérie*, Paris, 1847, pp. 6, 7, and 26, notes.

"Nous ne comptons ici les hommes morts dans les hôpitaux [i. e. 71 *per* 1000, in 1846 alone!], et nous ne parlons pas de ceux qui, réformés, vont mourir dans leurs familles. Nous ne parlons pas non plus de ceux tués par le feu de l'ennemi: ils sont peu nombreux.

Nous perdons par an, en Afrique, environ	200	hommes.
"Nous avons perdu en 1846	116	"
" À la prise de Constantine	100	"
" À la bataille d'Isly	27	"
" À la Smalah	9	"

"'Tout homme faible qu'on envoie en Afrique est un homme perdu.'—MARÉCHAL BUGEAUD, discours du 19 février, 1838."

[6] See *Discours prononcé par* M. DESJOBERT (Representative in the *Assemblée Nationale*), Paris, 1850; IDEM, *Documents Statistiques sur l'Algérie*, 1851; BOUDIN, *Histoire Statistique de la Colonisation et de la Population en Algérie*, Paris, 1853, *passim.*

It is with much disappointment that I am compelled to go to press with these evidences of the non-acclimation of races, without having received a copy of the work which DR. BOUDIN has in press (*Traité de Géographie et de Statistique Médicales*, 2 vols. 8vo., at Baillière's, Paris). Mr. Gliddon tells me that he perused some of its proof-sheets at the author's house, in Oct., 1855.

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his complexion undergoes no change by climate. While the white man is darkened by the tropical sun, the negro is never blanched in the slightest degree by a residence in northern latitudes. Like the quadrumana of the tropics, he is inevitably killed by cold; but it never changes his hair, complexion, skeleton, nor size and shape of brain.[7] We do not propose, however, to enter into this discussion here. Our object is simply to call attention to the *independence* of existing types, of all climatic causes now in operation.

While naturalists have been accumulating so much useful information concerning the history, durability, &c., of species in the animal kingdom, they leave us still in utter darkness as to the time or manner of their origin. Our actual Flora and Fauna extend, it is now ascertained, many thousand years beyond the chronologies taught in our schools to children; but whether man and his associates have existed ten or one hundred thousand years, we have no data for determining. Lepsius tells us that he regards even the records of the early (IIId and IVth) dynasties of Egypt, as a part of the *modern history* of man.

That organized beings have existed on earth (in the language of the great geologist Lyell) "*millions of ages*," no naturalist of our day will doubt; and although our knowledge is not sufficiently complete to enable us to follow Nature's great chain, link by link, yet it appears probable that there has been an ascending series, commencing with the simplest forms and ending with man. Geologists have arranged the materials which compose the crust of the earth into *igneous* and *sedimentary*. The first, as the name implies, are formed by the action of heat under superincumbent pressure, and are composed of an aggregate of crystalline particles, without any order or stratification. Sedimentary rocks are composed of the fragments of older rocks, worn down by the action of the elements, and deposited in the ocean, whence, by pressure, heat, and chemical agency, they are re-formed into new masses, assuming a stratified and more or less slaty structure.

To say nothing of subdivisions, the whole series have been divided into igneous rocks, primary stratified formations, secondary formations, tertiary formations, and diluvial formations. In the first two divisions we find no traces of life, animal or vegetable; in the secondary we find numerous plants, mollusks, reptiles, and fishes; and,

[7] The negro races are peculiarly liable to consumption out of the tropics, or even within them. They are never agriculturists, either in Egypt or in Barbary: nevertheless, in both countries, negroes are the shortest lived of the population. Monkeys suffer to a great extent with the same disease, in the Garden of Plants, at Paris. Nowhere in North Europe or in our Northern States, can the *Orang-utan* live.

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when we reach the tertiary, we find the shell animals approaching nearer, in specific forms, to existing species, than those of previous formations; and along with these are skeletons of birds and mammalia, including quadrupeds and quadrumana. The geological epoch of man has yet to be determined: it is certain that the investigations of each succeeding year tend to throw it further back in time; nor are there wanting good authorities who would not be surprised to find his remains in the tertiary, where the quadrumana have been recently, and for the first time, discovered.

A discussion of such difficulty and magnitude as the theory of progressive development, would be out of place here; but this idea seems to have taken possession of many of our leading authorities. Nor, at first sight, would it seem that the long-mooted question of the origin of species could properly find a place in an essay on *Medical Climate;* yet all these subjects have points of contact, which render it difficult to isolate them. Our object being to study the influence of climates and their diseases on *races*, we assuredly, *à priori*, should expect *species* and mere *varieties* to be influenced in different degrees. Natural history teaches us that the white and black races, for example, are distinct *species*. We should, therefore, regard their origin as *independent of climate;* and if we can show that these races are not affected in like manner by *diseases*, we fortify the conclusion to which natural history has led us. Well-ascertained *varieties* of a given species, however widely scattered, may exchange habitations with comparative impunity; while, on the contrary, as a general rule, each *species* of a *genus* has its prescribed geographical range. The species, for example, of the reindeer and the white bear, in the Arctic, can no more exchange places with the deer and bear of the Tropics, than can the Esquimau with the tropical Negro. Such facts as these, then, clearly show how deeply our subject implicates the investigation of *species* and *varieties*.

A great diversity of opinion has existed with regard to the origin of species, but we shall allude only to two of the more prominent. Of the first school, Cuvier may be regarded as the most distinguished authority. He contends that the geological history of the earth should be divided into distinct periods, each of which is complete in itself; that there has been, since the dawn of life, a succession of distinct creations and destructions; and that the organized beings of one epoch have no direct connection, by way of descent, with those of the preceding. According to this theory, the species of animals and plants now scattered over the face of the earth are *primordial* forms, the result of a special creation; which *have* endured without

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material change to the present, and which *will* endure unchanged until their allotted term of existence has expired.

The opposing school may be represented by Geoffroy St. Hilaire, the contemporary of Cuvier. It is contended by his followers that there has been but *one* creation, and no cessation of life, since the first organized beings were brought into existence; that, by a law of progressive development or evolution, in accordance with new climatic influences, brought into action, from time to time, by changes in the physical condition of the globe, the living beings of one period have given origin to those which follow; and so on through the whole chain, from the earliest and simplest forms to the last and most complex. Moreover, that what we term *species* remains permanent as long as the physical conditions which produced them remain unchanged. Some of this school go so far as to assert that no such thing as "species" exists; that Nature creates only *individuals*, no two animals or plants being exactly alike, and the species of each genus running together so closely as to leave their boundaries difficult, and often impossible, to define. They further contend, that transformations of species are incessantly going on around us, though so slowly as not to be easily recognized, in the atom of time which has been consumed so far by the human family.

Those who contend that all the races of men are of common origin, must, in spite of themselves, fall into these heterodox opinions of Lamarck, Oken, and St. Hilaire; because the races of men differ quite as much, anatomically and physiologically, as do the species of other genera in the animal kingdom — the Equidæ, the Ursines, Felines, &c. Professor Owen himself cannot point out greater differences between the lion, tiger, and panther, or the dog, fox, wolf, and jackal, than those between the White Man, Negro, and Mongol.

According to the above doctrine, not only are the individuals of our present Fauna and Flora direct descendants of the fossil world, but they are probably destined to be the ancestry of others still more perfect. The climatic influences now at work, it is supposed, will be changed, and *development* take up its line of march and carry on the great plan of the Creator. Thus, man himself is to be the progenitor of beings far more perfect than himself; and it must be confessed that there is no small room for improvement. But there is no good reason why we should enter the lists with these disputants, as the two schools unite at a point which meets all the requisitions of our present investigation. The term *species* is, at best, but a conventional one, without a fixed definition; and is used by both parties to designate certain groups of forms closely resembling

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each other, that have been permanent as far back as our means of investigation reach, and which will endure as long as the Faunas and Floras of which they form a part.

Our declared object is to ascertain what influence the *climates* of our day exert over existing forms, and especially over those of the human family. It should be borne in mind that each species has its own physiological and pathological laws, which give it its specific character; and each species must, therefore, be made a special study. Too much reliance has been placed upon *analogies;* since no one animal should be taken as an analogue for another. Not only are they variously affected by climate, food, &c., but also by morbific influences. These remarks apply with their greatest force to man, who is widely separated from the lower animals in many things, and more particularly his diseases. The "*Société Zoologique d'Acclimation,*" of Paris, is composed of some of the most scientific men of France, with I. Geoffroy St. Hilaire at its head; and to them each new species is a new study: they look to time and observation alone for their knowledge. When a new quadruped, bird, or plant, is brought to France, no one pretends to foretell the exact influence of the new climate upon it; and it has been ascertained that two species, brought from the same habitat, may be very differently affected. One may become habituated to a wide geographical range, while another only to a very limited one.

So it is with the species of man — each must be made a separate study, in connection with both Physical and Medical Climate. It does not at all advance our knowledge of man to tell us that pigs, poultry, horses, cattle, sheep, goats, dogs, &c., may be carried all over the world, may become habituated to all climates, and everywhere change their forms or colors. A race of men does not anywhere, in a few generations, like pigs, become white, brown, black, gray, or spotted; nor do the pigs, when they accompany man to the Tropics, become affected with dyspepsia, intermittent and yellow fever. It has been the fashion, for want of argument, to obscure the natural history of man, not by a few, but by volumes of these analogies. Let us ask, on the other hand, when and where have the people of the north become habituated to the climate of the Tropics, or those of the Tropics been able to live in the north? We have no records to show that a race of one extreme has ever been acclimated to the opposite; and as long as a race preserves its peculiar physiological structure and laws, it must to some extent be peculiarly affected by morbific influences.[8]

[8] It is far from being proved that our dogs, horses, cattle, and other domestic animals, are of common origin. The reader is referred to "*Types of Mankind*" and the Appendix

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In considering the climates of the Tropics and the adjacent warm climates, it is necessary to divide *Medical Climate* into *non-malarial* and *malarial*. By a *non-malarial* climate, we wish to designate one which is characterized by temperature, moisture or dryness, greater or less changeableness, &c.; in short, all the characteristics of what is understood by the word "climate," independently of local morbific influences. By *malarial* climates, we mean those in which malarial emanations are superadded to the above conditions. The two climates are familiar to every one, and often exist within a mile of each other. In our Southern States, we have our high healthy "pine or sand-hills," bordering the rich alluvial lands of our rivers. On the low lands, in many places, the most deadly malarial fevers prevail in summer and autumn, while in the sandy lands there is an entire exemption from all diseases of this class; and our cotton planters every summer seek these retreats for health. Not only in these more temperate regions of the United States is this proximity of the two climates observed, but also in Bengal and other parts of India, in the islands of the Indian Ocean, at Cape Colony, the West India islands, &c. Mobile and its vicinity afford as good an illustration of these climates as can be desired. This town is situated at the mouth of the Mobile river, in latitude 30° 40″ north, on the margin of a plain, that extends five miles to the foot of the sand-hills, and which is interspersed with ravines and marshes. The sand-hills rise to the height of from one to three hundred feet, and extend many miles. Now the thermometer, barometer, and hygrometer, indicate no appreciable difference in the climates of the hills and the plain, except that the latter is rather more damp; and yet the two localities differ immensely in point of salubrity. Let us suppose that a thousand inhabitants of Great Britain or Germany should be landed at Mobile about the month of May, and one-third placed on the hills, one-third in the town, and the remainder in the fenny lands around the latter, and ask what would be the result at the end of six months. The first third would complain much of heat, would perspire enormously, become enervated; but no one would perhaps be seriously sick, and probably none would die from the effects of the climate. The second third, or those in the city, if it happened to be a year of epidemic yellow fever, would, to say the least, be decimated, or even one-half might die, while the resident *acclimated* population were enjoying perfect health. The remaining portion, or those in the fenny district, would escape yellow fever, but would, most of them, be attacked with intermittent and

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of "*Moral and Intellectual Diversity of Races*"—in HOTZ's translation of DE GOBINEAU, (Philadelphia, 1855)—for a full examination of this point.

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remittent fevers, bowel affections, and all forms of malarial or marsh diseases: fewer would die than of those in the city, but a large proportion would come out with broken-down constitutions. Yellow fever sometimes extends for two or three miles around the city; but if it does, it always commences in the latter. Here, then, we have three distinct medical climates actually within sight of each other. This is by no means a peculiarity of one locality, but thousands of similar examples may be cited in warm climates. Charleston, South Carolina, its suburbs, and Sullivan's Island, in the harbor near the city, give us another example quite as pertinent as that of Mobile. In our cotton-growing States, the malarial climate is by no means confined to the low and marshy districts; on the contrary, in the high, undulating lands throughout this extensive region, wherever there is *fertility of soil*, the population is subjected more or less to malarial diseases. These remarks apply, as will be seen further on, more particularly to the white population, the negroes being comparatively exempt from all the endemic diseases of the South.[9] The tropical climate of Africa, so far as known to us, differs widely from the same parallels in other parts of the globe: it has no *non*-malarial climate. Dr. Livingstone "has been struck down by African fever upwards of thirty times," in sixteen years.[10]

But let us go a little more into details, and examine a few of the races of man, in connection with non-malarial climates. The Anglo-Saxon is the most migrating and colonizing race of the present day, and may be selected for illustration. Place an Englishman in the most healthful part of Bengal or Jamaica, where malarial fevers are unknown, and although he may be subjected to no attack of acute disease, may, as we are told, become *acclimated*, and may live with a tolerable degree of health his threescore and ten years; yet, he soon ceases to be the same individual, and his descendants degenerate. He complains bitterly of the heat, becomes tanned; his plump, plethoric frame is attenuated; his blood loses fibrine and red globules; both body and mind become sluggish; gray hairs and other marks of premature age appear — a man of 40 looks fifty years old — the average duration of life is shortened (as shown by life-insurance tables); and the race in time would be exterminated, if cut off from fresh supplies of immigrants. The same facts hold in our Southern

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[9] A medical friend (DR. GORDON) who has had much experience in the diseases of the interior of Alabama, South Carolina, and Louisiana, has been so kind as to look over these sheets for me, and assures me that I have used language much too strong with regard to the exemption of negroes. He says they are quite as liable as the whites, according to his observations, to intermittents and dysentery.

[10] "*London Chronicle*," Dec. 15, 1856.

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States, though in a less degree; and the effect is in proportion to the high range of temperature. We here have short *winters*, which do not exist in the Tropics; and the wear and tear of long summers are by them, to a great extent, counterbalanced. The English army surgeons tell us that Englishmen *do not become acclimated* in India: length of residence affords no immunity, but, on the contrary, the mortality among officers and troops is greatest among those who remain longest in the climate.[11]

There is no reason to believe that the Anglo-Saxon can ever be transformed into a Hindoo. We have already given reasons why Jews become acclimated, in hot latitudes, with more facility than races further north; but even these cannot be changed from their original type by ages of residence in foreign climes. There is a little colony of Jews at Cranganor, in Malabar, near Cochin, who have resided there more than 1000 years, and who have preserved the Jewish type unchanged. There is in the same neighborhood a settlement of what are called black Jews, but who are of Hindoo blood.[12] There are also in India the Parsees, who have been almost as long in the country as the Jews, and still do not approximate to the Hindoos in type. Nay, more, in India itself we see, in the different castes, the most opposite complexions, which have remained independent of climate several thousand years. Unlike the Anglo-Saxons, the Jews seem to bear up well against that climate.

The colonists of warm countries nowhere present the same vigor of constitution as the population of Great Britain or Germany; and although they may escape attacks of fever, they are annoyed by many minor ills, which make them a physic-taking and shorter-lived people. Knox asserts that the Germanic races would die out in America if left alone; and though I am not disposed to go to his extremes, I do not believe that even our New England States are so well adapted to those races as the temperate zone of Europe, from which history derives them.

There is, unquestionably, an acclimation, though imperfect, against moderately high temperature; and it is equally true, that persons who have gone through this process, and more especially their children, when grown up, are less liable to *violent* attacks of our marsh fevers, when exposed to them, than fresh immigrants from the north. The latter are more plethoric, their systems more inflammable; and although not more liable *to be attacked* by these endemics than natives, they experience them, when attacked, in a

[11] JOHNSON on *Tropical Climates*, London, 1841, p. 56.

[12] See, for details, "*Types of Mankind*," by NOTT & GLIDDON, chapter "Physical History of the Jews."

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more violent and dangerous form. The latter fact holds good of yellow, as well as of remittent fever.

DR. BOUDIN, in his "*Lettres sur l'Algérie*," after establishing the persistent influence of marsh malaria on French and English colonists, continues thus:

"Reste à examiner l'influence exercée sur le chiffre des décès par le séjour dans les localités de l'Algérie, *non sujettes aux émanations paludéennes*, mais se distinguant de la France uniquement par une température élevée. À défaut de documents assez nombreux recueillis en Algérie même, nous invoquerons les faits relatifs à deux possessions anglaises ayant la plus grande analogie thermométrique avec notre possession africaine; nous voulons parler: 1°, du Cap de Bonne-Espérance; 2°, de Malte: l'un et l'autre proverbialement exemptés de l'élément paludéen.

"Au Cap de Bonne-Espérance, la mortalité de trois régiments anglais, de 1831 à 1836, a été représentée par les nombres suivants:

En 1831	26 décès.
" 1832	26 "
" 1833	28 "
" 1834	28 "
" 1835	34 "
" 1836	33 "

"À Malte, où l'on peut considérer les hommes les plus jeunes comme les plus récemment arrivés d'Angleterre, la proportion des décès a suivi la marche ci-après.

Au-dessous de 18 ans	10 décès sur 1000 hommes.
De 18 à 25	18.7 "
" 25 à 33	23.6 "
" 33 à 40	29.5 "
" 40 à 50	34.4 "

"En résumé, les analogies puisées, non seulement dans les localités paludéennes, mais encore dans les contrées non marécageuses, ayant une plus grande analogie climatologique avec l'Algérie, se montrent peu favorable à l'hypothèse de l'acclimatment."

He then goes on to give statistics both of the civil and military population of Algeria, which show still more deadly effects of climate.

If we turn now to the physical history of the Negro, we shall find the picture completely reversed. He is the native of the hottest region on the globe, where he goes naked in the scorching rays of the sun, and can lie down and sleep on the ground in a temperature of at least 150° of Fahrenheit, where the white man would die in a few hours. And while the degenerate tropical descendants of the whites are regenerated by transportation to cold parallels of the temperate zone, experience abundantly proves that, in America, the Negro steadily deteriorates, and becomes exterminated north of about 40° north latitude. The statistics of New England, New York, and Philadelphia, abundantly prove this. The mortality of blacks in our Northern States averages about double that of the whites; and although their natural improvidence and social condition may, and

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do, have an influence on this result, still, no one conversant with the facts will deny the baneful influence of cold upon the race.

It is evident, then, that the white and black races differ, at the present day, as much in their physiological as they do in their physical characters; and until their actual characteristics are changed, it cannot be expected that their normal geographical range will be enlarged. The respective types which they now present, antedate all human, written, or monumental records, and will only disappear with the other typical forms of our Fauna.

We may here refer to another curious train of facts, in connection with the adaptability of the above races to climate. We allude to the results of crossing or breeding them together, which seem best explained by the laws of hybridity. The mulattoes, no matter where born, north or south, possess characteristics, in reference to medical climate, intermediate between the pure races. The mulattoes brought from Maryland or Virginia to Mobile or New Orleans, suffer infinitely less from the diseases of these localities, than do the pure whites of the same States. In fact, the smallest admixture of negro blood, as in the Quarteroon or Quinteroon, is a great, though not absolute, protection against yellow fever. We have, in the course of twenty years' professional observations, in Mobile, seen this fact fully tested; and it is conceded, on all hands, throughout the South. Previously to the memorable yellow fever epidemic of 1853, we never saw more than two or three exceptions; and although there were more examples in that year, still, the mortality was trifling compared with that of the pure whites. I hazard nothing in the assertion, that one-fourth negro blood is a more perfect protection against yellow fever, than is vaccine against small-pox.

The subject of hybridity has been very imperfectly understood until the last few years; and to the late Dr. Morton are we mainly indebted for the advance actually made. He has shown that there is a regular gradation, in hybridity among species, from that of perfect sterility to perfect prolificacy. The mulatto would seem to fall into that condition of hybrids, where they continue to be more or less prolific for a few generations, but with a constant tendency to run out. The idea is prevalent with us, that mulattoes are less prolific than either pure race; suffer much from tubercular affections; their children die young; and that their average duration of life is very low. That all this is true of the cross of the *pure* whites and blacks, I have no doubt; but these remarks apply with less force to the cross of *Spaniards*, *Portuguese*, and other dark races, with the negro: these affiliate much better. If we could select the pure-blooded races, put them together, and continue crossing them for

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several generations, we might come to more definite conclusions with regard to the specific *proximity* of races; but this we are unable to control; nor has sufficient use been made even of the materials we have at command. Only a few years ago, the origin of the domestic dog was a subject of dispute, and many naturalists supposed it to be derived from the wolf; but M. Flourens has been making a series of experiments, in the Garden of Plants, at Paris, which settles this part of the discussion. He ascertained that the progeny becomes *sterile after the third generation;* while that of the dog and jackal run as far as the *fourth* generation, and then in like manner become sterile. These are important discoveries in the history of *hybridity*, and show how erroneous have been conclusions as to identity of species, based upon *prolificacy* of offspring.

There is reason, as above stated, to believe that this law of hybridity applies to the species of man; and that there are degrees of fertility in the offspring of different types, in proportion as they are similar or dissimilar.[13]

Our limits, if we desired to do so, would not permit a more extended examination of races, in connection with *non-malarial* climates; and we shall therefore pass on to another division of the subject. The whites and blacks have sufficiently served to illustrate the point; and the other races would show similar effects, in various degrees. Many facts bearing on other races will be brought out as we progress.

Malarial Climates.—Under this head, we shall introduce facts to prove that races are influenced differently, not only by the *temperature* of various latitudes, but by *morbific agents*, which, to a certain extent, are independent of mere temperature—viz., the causes of marsh or yellow fevers, typhoid fever, cholera, plague, &c. Our illustrations will be again taken mostly from the white and black races, because they afford the fullest statistics, and because the writer has been professionally engaged with these races for more than thirty years, and is familiar with the peculiarities of both.

We should here call attention to a striking physiological difference between the two races. It was a remark annually made by the distinguished Dr. Chapman, Professor of Practice in the Pennsylvania University: "*That the negro is much less subject to inflammatory diseases, with high vascular action, than the whites, and rarely bears blood-letting, or depletion in any form;* and even in pleurisy, pneumonia, &c., he often requires stimulants instead of depletants."

[13] For a full discussion of the question of hybridity, see NOTT & GLIDDON'S "*Types of Mankind*," pp. 372–410: — and also the Appendix, by J. C. NOTT, to HOTZ'S *Gobineau*, pp 489–504.

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The remark is unquestionably true; and will be vouched for by every experienced physician North and South. I have had under my charge, for some years, a private infirmary, devoted to negroes; in which are annually received a large number of negro laborers, and most of them from our city cotton-presses and steamboats, where none but the most athletic are employed. When seized with pneumonia, pleurisy, and other acute diseases of winter (to say nothing of summer affections), they almost invariably come in with feeble pulse, cool skin, unstrung muscles, and all the symptoms of prostration; and require to be treated mainly with revulsives, quinine, and stimulants. This I remarked also in Philadelphia, when a resident student at the Almshouse; and all the medical writers of the South sustain me. The negro, too, always suffers more than whites from cholera, typhoid fever,[14] plague, small-pox, and all those diseases arising from morbid poisons, that have a tendency to depress the powers of life, with the exception of marsh and yellow fevers—to which, we shall see, he is infinitely less liable. The planters of the South look with terror to the appearance of cholera or typhoid diseases among their negroes; and whether these be natives of the extreme South, or recently brought from the colder and more salubrious regions of Maryland and Virginia, it matters not: the susceptibility belongs to the *race*, and is little influenced by place of birth.

The strictly white races reach their highest physical and intellectual development, as well as most perfect health and greatest average duration of life, above latitude 40° in the Western, and 45° in the Eastern Hemisphere; and whenever they migrate many degrees below these lines, they begin to deteriorate from increased temperature, either alone, or combined with morbific influences incident to climate. On the continent of Europe, there has been, for several thousand years, such a constant flux and reflux of peoples, from wars and migrations, that races have become so mingled, from the Mediterranean to the Arctic, as to render it impossible now to unravel this human maze, and to give its proper value to each indigenous race, of which we believe there were many. We must, therefore, take them in masses or groups; and, in speaking of *white* races, we shall draw our illustrations mostly from Anglo-Saxons, Celts, and Germans, which are so nearly allied, and so like in temperament, as to answer sufficiently well our present wants. They, too, have been widely scattered through foreign climates; and,

[14] Dr. Boudin, in his "*Pathologie Comparée*," gives abundant proof of the liability of negroes to typhoid fever, consumption, and cholera, in the Tropics and in the Old World.

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thanks to their intelligence, have furnished us with reliable statistics. There are many races in Europe that, according to our view, cannot strictly be included with the above class, viz., the dark-skinned Iberians, the Spaniards, Portuguese, Italians, and others.

Let us next inquire what real progress has been made towards the *acclimation* of white races in tropical climates. Although we have writings in abundance on the subject, they are mostly vague and unsatisfactory; and even a precise definition of the term is wanting. All we can hope, within our limits, is to lay out some land-marks, which may stimulate others to greater detail.

Dr. Rochoux has attempted a somewhat precise definition of the term *acclimation;* and perhaps a better one cannot be given in the present state of knowledge. He says: "Acclimation is a profound change in the organism, produced by a prolonged sojourn in a place whose climate is widely different from that to which one is accustomed; and which has the effect of rendering the individual who has been subjected to it similar, in many respects, to the natives (*indigènes*) of the country which he has adopted."

This definition strikes at once a leading difficulty in this discussion, and one which should, as far as possible, be cleared away, before we can fully estimate the influence of climate on mankind. Who are these "*indigènes*" of whom Rochoux speaks? Are they, in all cases, really descendants of the same original stock as those who come to seek acclimation? Here, I repeat, are questions that have not been fully nor fairly examined, even by Prichard, the great champion of the unity of the human race; and which embarrass our progress at every step.

Dr. Prichard remarks: "It is well known that the proportional number of individuals who attain a given age, differs in different climates; and that the warmer the climate, other circumstances being equal, so much the shorter is the average duration of human life. Even within the limits of Europe, the difference is very great. In some instances, according to the calculations of M. Moreau de Jonnès, the rate of mortality, and inversely the duration of life, differ by nearly one-half from the proportions discovered in other examples. The following is a brief extract from a table presented by this celebrated calculator of the Institute:

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"TABLE EXHIBITING THE ANNUAL MORTALITY IN DIFFERENT COUNTRIES IN EUROPE.

In Sweden	from	1821 to 1825	1 death in	45
Denmark	"	1819	"	45
Germany	"	1825	"	45
Prussia	"	1821 to 1824	"	39
Austrian Empire	"	1825 to 1830	"	43
Holland	"	1824	"	40
Great Britain	"	1800 to 1804	"	47
France	"	1825 to 1827	"	39.5
Canton de Vaud	"	1824	"	47
Lombardy	"	1827 to 1828	"	31
Roman States	"	1820	"	28
Scotland	"	1821	"	50

"The difference of twenty-eight and fifty is considerable; but even the latter rate of mortality is considerably greater than that which the data collected by M. Moreau de Jonnès attribute to Iceland, Norway, and the northern parts of Scotland.

"In approaching the equator, we find the mortality increase, and the average duration of life consequently diminish. The following calculation, obtained by the same writer, sufficiently illustrates this remark:

LATITUDE.	PLACES.	ONE DEATH IN	
6° 10′	Batavia	26	inhabitants.
10° 10′	Trinidad	27	"
13° 54′	Sainte Lucie	27	"
14° 44′	Martinique	28	"
15° 59′	Guadaloupe	27	"
18° 36′	Bombay	20	"
22° 33′	Calcutta	20	"
23° 11′	Havana	33	"

"It has been observed that, in some of these instances, the rate of mortality appears greater than that which properly belongs to the climate; as some of the countries mentioned include cities and districts known to be, by local situation, extremely unhealthy.[15] In some, the mortality belongs, in great part, to strangers, principally Europeans, who, coming from a different climate, suffer in great numbers. The separate division from which the collective numbers above given are deduced, will sufficiently indicate these circumstances.

In Batavia, 1805	Europeans died	1 in 11	
"	Slaves	1 " 13	
"	Chinese	1 " 29	
"	Javanese, viz., Natives	1 " 40	
Calcutta, 1817 to 1836	Europeans and Eurasians	1 " 28	
"	Portuguese and French	1 " 8	
1822 to 1836	Western Mahommedans	1 " 36	
"	Bengal "		
"	Moguls		
"	Arabs		

[15] A striking proof of the difference between a malarial and non-malarial climate, in close proximity.—J. C. N.

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Calcutta, 1822 to 1836	Western Hindus died	1 in 16
"	Bengal Hindus	
"	Low Castes	
"	Mugs	
Bombay, 1815	Europeans	1 " 18.5
"	Mussulmans	1 " 17.5
"	Parsees	1 " 40
Guadaloupe, 1811 to 1824	Whites	1 " 22
"	Free men of color	1 " 35
Martinique, 1825	Whites	1 " 24
"	Free men of color	1 " 23
Granada, 1815	Slaves	1 " 22
In Saint Lucia, 1802	Slaves	1 " 20

"The comparatively low degree of mortality among the free men of color, in the West Indies, and the Javanese and Parsees, in countries where those races are either the original inhabitants, or have become naturalized by an abode of some centuries, is remarkable, in the preceding table. It would seem that such persons are exempted, in a great measure, from the influence of morbific causes, which destroy Europeans and other foreigners. *That the rate of mortality should be lower among them than in the southern parts of Europe, is a fact which, in the present state of our knowledge, it is difficult to explain.*"[16]

It appears, from these tables, which are corroborated by all subsequent statistics of the above-named countries, as well as those of the United States, that the whites show the greatest average duration of life in temperate latitudes. Russia, it seems, gives a higher rate of mortality than any cold climate short of the Arctic (of which we want statistics); and why the great difference of mortality in several of these countries, differing apparently so little in climate, it is impossible, in the present state of knowledge, to determine. It is, probably, in many instances, attributable to habits and social condition. In Russia, where the mortality is so great, it perhaps may be explained by a combination of causes—such as the extreme rigor of the climate, the oppressed condition of the serfs, their bad habits and improvidence, and last, though not least, the immigration and interblending of races foreign to the climate. In Norway, the mortality is put down at 1 in 54, or one-half that of Russia.

The Germanic races we know to be among the most hardy and robust of the human family, by nature; and yet, as we see them (mostly of the poorer classes), in our Southern States, they are, in general, a squalid-looking people. I can assign no other cause than their mode of life—with which, in Germany, I am not familiar. Their mode of sleeping, in America, is very destructive of health: they live in confined rooms, and lie at night between two feather-beds, even in our mild climate. It is impossible that any people can be healthy with such customs; and if a strict scrutiny were made into the habits

[16] "*Physical History of Mankind*, I, pp. 116–17–18.

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of many of the populations above-named, it is not improbable that much of the discrepancy in their vital statistics would be explained by condition and habits, skill of the medical profession, &c.[17]

When we come down to the Roman States, the mortality rises to 1 in 28, which is easily explained: there begin the *malarial climates:* and we shall see that the mortality among whites increases onwards to the Tropics. But Prichard makes one fundamental mistake: he never stops to ask a question about the adaptation of *race* to climate, but follows out his foregone conclusion, and goes on to show that, "in approaching the equator, the mortality increases, and the average duration of life consequently diminishes;" illustrating it by the second table, beginning with Batavia. He is much embarrassed to account for the "low degree of mortality among the free men of color in the West Indies, the Javanese and Parsees;" and for a reason why "the rate of mortality should be lower among them, than in the southern parts of Europe"?

Now, the reason is obvious: the blacks, Parsees, and Javanese, are all *autochthons* of hot climates, and were created to suit the conditions in which they have been placed, as well as all similar ones. The Parsees, like the Jews, were from a warm latitude originally, and soon become acclimated; but the Anglo-Saxon, and kindred races, never thrive and never will prosper in such climates. Even in Italy, the white races die, when a negro might live, or a *coolie* would flourish. The same remarks apply to the Chinese, the Mahomedans, Moguls, and Arabs, in the last table: all are from hot climates, and prosper in Calcutta.

The greater mortality among the Hindus, compared with the Mussulmans, is accounted for by the fact that Hindus of Calcutta consist of families including a large proportion of infant life. The same circumstance explains the mortality of the Portuguese, who are also a wretched and suffering class.[18] The French (but 160) are included with 3181 Portuguese; and the statement is worth nothing, so far as the former are concerned.

"The native troops on the Bengal establishment," says CAPTAIN HENDERSON (*Asiatic Researches*, vol. 20, part I.), "are particularly healthy, under ordinary circumstances.

"It has been found, by a late inquiry, embracing a period of five years, that only one man is reported to have died per annum, out of every hundred and thirty-one of the actual

[17] While writing this, I meet with a very intelligent Prussian gentleman, who informs me that this mode of sleeping between feather-beds is common throughout the Germanic States, as well as in Russia, among the peasantry, and middle and lower classes generally. Such manner of sleeping precludes the possibility of regulating the covering to temperature. The system must be often greatly and injuriously overheated, and rendered more susceptible to the intense cold of their own climates, when exposed.

[18] JOHNSON & MARTIN'S "*Influence of Tropical Climates*," London, 1841, p. 50.

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strength of the army. So injurious, however, is Bengal proper to this class of natives, in comparison with the upper provinces, that, although only one-fourth of the troops exhibited are stationed in Bengal, the deaths of that fourth are more than a moiety of the whole mortality reported."

Now, according to this statement, the native troops in the interior show a degree of healthfulness (1 death in 131) *unknown to any troops in Europe;* and even in Bengal, the mortality, as stated above, would only be about 16 to the 1000, or about 1 in 60!!!

The most minute and reliable statistics we possess, touching the influence of tropical climates on the European races, are drawn from the reports of the British army surgeons, which give a truly melancholy picture of the sacrifice of human life. We shall use freely one of these reports, made by Major Tulloch, in 1840—an abstract of which may be found in the April No. of the Medico-Chirurgical Review of that year. This report includes the stations of Western Africa, St. Helena, the Cape of Good Hope, and the Mauritius. The following statement refers to Sierra Leone:

"From a table furnished by Major Tulloch, it appears that, during so long a period as eighteen years, the admissions have averaged 2978, and the deaths 483 per thousand of the strength; in other words, every soldier was thrice under medical treatment, and nearly half the force perished annually: indeed, in 1825, and again in 1826, when the mortality was at its height, three-fourths of the force was cut off. Yet this estimate excludes accidents, violence, &c.

"A considerable portion of the deaths in 1825–6 took place at the Gambia, which proved the grave of almost every European sent there. Had the mortality of each station been kept distinct, that of the European troops at Sierra Leone would not probably have exceeded 350 per thousand, or rather more than a third of the garrison, annually.

"However much the vice and intemperance, not only of the troops, but the other classes of white population, may have aggravated the mortality, a more regulated life and purer morals brought no safety to them. For, among the Missionaries, we find that:

Of 89 who arrived between March, 1804, and August, 1825, all men in the prime of life, there died	54
Returned to England, in bad health	14
" good health	7
Remained on the coast	14
Total	89"

During the year 1825, about 300 white troops were landed at different times, and in detachments: nearly every one died, or was shattered in constitution; and, what is remarkable, "*During the whole of this dreadful mortality, a detachment of from* 40 *to* 50 *black soldiers of the* 2*d West-India Regiment only lost one man, and had seldom any in the hospital.*" These black soldiers, too, had been born and brought up in the West Indies; and, according to the commonly received theory of acclimation, should not have enjoyed this exemption. No length of residence acclimates the whites in Africa; on

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the contrary, it exterminates them. The history of the whole coast is the same.

The Major's report goes on to speak of the black troops, recruited from among the negroes captured from slavers, and liberated at Sierra Leone. It is remarkable that these black troops, recruited from *native* Africans, give a mortality, during eighteen years, of an average of 30 per 1000—twice as high as the mortality of other troops serving in their native country. This rate of mortality is about the same as that of the black troops in Jamaica and Honduras. * * * *It is not, however, from fever (the disease of the climate) that the black soldier suffers. From this the attacks have been fewer, and the deaths have not materially exceeded the proportion among an equal number of white troops in the United Kingdom, or other temperate climates. The black troops suffer much more from fever in the West Indies. Small-pox killed many, dracunculus,* &c.

The Cape Colony possesses a milder climate, is free from malarial influences; and the troops, both white and native, enjoy remarkable exemption from disease and mortality. Fevers are rare and mild. The Hottentots, like other black races, show a strong tendency to phthisis—far greater than the white troops.

The Mauritius, though in the same latitude as Jamaica, is more temperate, and far more salubrious. The British troops are as exempt from disease here as in Great Britain. This island has a population of about 90,000, two-thirds of whom are colored; and while the white population are remarkably healthy, both military and civil, the negroes die in as great a proportion as in the West Indies, says Major Tulloch. A prolonged residence here, from heat of the climate, is unfavorable to longevity of whites.

Seychelles.—"A group of small islands, in the Indian Ocean, between 4° and 5° south latitude. They are fifteen in number; but the principal one, named Mahé, in which a detachment of British troops is stationed, is sixteen miles long, and from three to four broad, with a steep, rugged, granite mountain intersecting it longitudinally. The soil of Mahé is principally a reddish clay, mixed with sand; and is watered by an abundance of small rivulets. The weather in these islands is described as being clear, dry, and extremely agreeable. There is little difference in the seasons, except during November, December, and January, when much rain falls, with occasional light squalls. The equality of the temperature may be inferred, when we state that the maximum of temperature throughout the *year* was 88°, and the minimum 73°. We cannot, therefore, be surprised when we are told that the total population of the principal islands in the group amounted, in 1825, to 582 whites, 323 free people of color, and 6058 slaves—all of whom are said to enjoy remarkably good health, and an exemption from the languor and debility so much experienced in other tropical climates. Extreme longevity is very common; *and affections of the lungs almost the only disease, of a serious character, to which the inhabitants are subject.*"

The British troops proved very sickly here; but Major Tulloch attributes this to bad diet and intemperance.

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The fact is so glaring, and so universally admitted, that I am really at a loss how to select evidence to show that there is no *acclimation* against the endemic fevers of our rural districts. Is it not the constant theme of the population of the South, how they can preserve health? and do not all prudent persons, who can afford to do so, remove in the summer to some salubrious locality, in the pine-lands or the mountains? Those of the tenth generation are just as solicitous on the subject as those of the first. Books written at the North talk much about acclimation at the South; but we here never hear it alluded to *out of the yellow-fever cities.* On the contrary, we know that those who live from generation to generation in malarial districts become thoroughly poisoned, and exhibit the thousand Protean forms of disease which spring from this insidious poison.

I have been the examining physician to several life-insurance companies for many years, and one of the questions now asked in many of the policies is, "*Is the party acclimated?*" If the subject lives in one of our southern seaports, where yellow fever prevails, and has been born and reared there, or has had an attack of yellow fever, I answer, "*Yes.*" If, on the other hand, he lives in the country, I answer, "*No;*" because there *is no acclimation against intermittent and bilious fever, and other marsh diseases.* Now, I ask if there is an experienced and observing physician at the South who will answer differently? An attack of yellow fever does not protect against marsh fevers, nor *vice versâ.*

The acclimation of negroes, even, according to my observation, has been put in too strong a light. Being originally natives of hot climates, they require no acclimation to *temperature*, are less liable to the more inflammatory forms of malarial fevers, and suffer infinitely less than whites from yellow fever: they never, however, as far as my observation extends, become proof against intermittents and their sequelæ. The cotton planters throughout the South will bear witness, that, wherever the whites are attacked with intermittents, the blacks are also susceptible, though not in so great a degree. My observations apply to the region of country removed from the rice country. We shall see, further on, that the negroes of the rice-field region do undergo a higher degree of acclimation than those of the hilly lands of the interior. I know many plantations in the interior of Alabama, South Carolina, Georgia, Mississippi, and Louisiana, on which negroes of the second and third generation continue to suffer from these malarial diseases, and where gangs of negroes do not increase.

Dr. Samuel Forry, in his valuable work on the climate of the

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United States, has investigated fully the influence of our southern climates on our population, and uses the following decided language in relation to the whites:

"In these localities, as is often observed in the tide-water region of our Southern States, the human frame is weakly constituted, or imperfectly developed: the mortality among children is very great, and the mean duration of life is comparatively short. Along the frontiers of Florida and the southern borders of Georgia, as witnessed by the author, as well as in the low lands of the Southern States generally, may be seen deplorable examples of the physical, and perhaps mental, deterioration induced by endemic influences. In earliest infancy, the complexion becomes sallow, and the eye assumes a bilious tint: advancing towards the years of maturity, the growth is arrested, the limbs become attenuated, the viscera engorged, &c."—P. 365.

But, leaving our own country, let us look abroad and see what the history of other nations teaches.

The best-authenticated examples, perhaps, anywhere to be found on record, of the enduring influence of marsh malaria on a race, are in the Campagna, Maremma, Pontines, and other insalubrious localities in classic Italy. The following account is given by Dr. James Johnson, in his work on *Change of Air;* and every traveller through Italy can vouch for its fidelity:

"It is from the mountain of Viterbo that we have the first glimpse of the wide-spread *Campagna di Roma.* The beautiful little lake of Vico lies under our feet, its sloping banks cultivated like a garden, but destitute of habitations, on account of the deadly malaria, which no culture can annihilate. From this spot, till we reach the desert, the features of poverty and wretchedness in the inhabitants themselves, as well as in everything around them, grow rapidly more marked. We descend from Monti Rose upon the Campagna, and, at Baccano, we are in the midst of it."

After describing the beauty of the scenery, and its luxuriant vegetation, he continues:

"But no human form meets the eye, except the gaunt figure of the herdsman, muffled up to the chin in his dark mantle, with his gun and his spear; his broad hat slouched over the ferocious and scowling countenance of a brigand: the buffalo which he guards is less repugnant than he. As for the shepherd, Arcadia forbid that I should attempt his description! The savage of the wigwam has health to recommend him. As we approach within ten miles of Rome, some specks of cultivation appear, and with them the dire effects of malaria on the human frame. Bloated bellies, distorted features, dark yellow complexions, livid eyes and lips; in short, all the symptoms of dropsy, jaundice, and ague, united in their persons. That this deleterious miasma did exist in the Campagna from the very first foundation of Rome down to the present moment, there can be little doubt."

He then goes on to prove the fact, from the writings of Cicero, Livy, and others; and makes it clear that the population of Italy are no nearer being *acclimated* against this poison, than they were two thousand years ago.

Sir James Johnson makes the following just remarks, which apply equally to the malarious districts of our country:

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"A glance at the inhabitants of malarious countries or districts, must convince even the most superficial observer, that the range of disorders produced by the poison of malaria is very extensive. The jaundiced complexion, the tumid abdomen, the stunted growth, the stupid countenance, the shortened life, attest that habitual exposure to malaria saps the energy of every mental and bodily function, and drags its victims to an early grave. A moment's reflection must show us, that *fever* and *ague*, two of the most prominent features of malarious influence, are as a drop of water in the ocean, when compared with the other less obtrusive, but more dangerous, maladies that silently, but effectually, disorganize the vital structures of the human fabric, under the operation of the deleterious and invisible poison.

"What are the consequences? Malarious fevers; or, if these are escaped, the foundation of chronic malarious disorders is laid, in ample provision for future misery and suffering. These are not speculations, but facts. Compare the range of human existence, as founded on the decrement of human life in Italy and England. In Rome, a twenty-fifth part of the population pays the debt of nature annually. In Naples, a twenty-eighth part dies. In London, only one in forty; and in England generally, only one in sixty falls before the scythe of time, or the ravages of disease."

As is the case with all of our southern seaports, "the suburbs of Rome are more exposed to malaria than the city; and the open squares and streets, than the narrow lanes in the centre of the metropolis." "The low, crowded, and abominably filthy quarter of the Jews, on the banks of the Tiber, near the foot of the capital, probably owes its acknowledged freedom from the fatal malaria to its sheltered site and inconceivably dense population." This immunity may arise, at least in part, from their position at the *foot* of the hill; for there is no exception to the rule, at the South, that a residence on the bank of a river, or in low land, is less affected by malaria than the hill that overlooks it. At present, the fact is inexplicable, although universally admitted.

We will here add some interesting facts, from the writings of the distinguished military physician, M. le Docteur Boudin, derived from personal observation, during long residence in Algeria, and from official government documents.

"On the 31st of December, 1851, the indigenous city population (of Algeria) amounted to 105,865 inhabitants, of whom there were:

Mussulmans	81,329
Negroes	3,488
Jews	21,048

"If we compare this census with that of the year 1849, the following facts appear:

"1. By a comparison of births and deaths in the official tables, the Mussulman population is decreasing.

"2. The negroes have decreased, in two years, 689.

"3. The Jews, during the same time, have increased 2020.

"The mortality among the European population, in Algeria, from 1842 to 1851, has varied from 44 to 105 out of every 1000; and, instead of diminishing from year to year, under acclimation, *the mortality has steadily increased.*

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Mortality according to Nationality.

"Heretofore we have given the mortality of the European population taken in mass. It is understood that this mortality must be greatly influenced by the *origin* of the different elements of the population. We have shown that the half of the European population is composed of strangers (other than French), and numbers over 41,000 Spaniards, and 15,000 Italians and Maltese. The official tables give the following mortality, from 1847 to 1851, for the French and strangers (Spaniards, Italians, and Maltese):

	Deaths for each 1000.	
	Strangers.	French.
1847	48.4	50.8
1848	41.8	41.7
1849	84.3	101.5
1850	43.4	70.5
1851	39.3	64.5"

Thus, on the one side, we see that the mortality of the French greatly exceeds that of the other European population; while, on the other, in 1850 and 1851, the mortality of the former rises to a figure three times greater than the normal mortality of France.

Jewish Population.

The official tables give the following *résumé* of the mortality of the Jewish population, during the years from 1844 to 1849:

1844	21.6	deaths per 1,000.
1845	36.1	"
1847	31.5	"
1848	23.4	"
1849	56.9	"

This mortality is greatly below that of both the European and Mussulman population, and shows the difference of acclimation in Jews and Frenchmen: "Nulle part le Juif ne nait, ne vit, ne meurt, comme les autres hommes au milieu desquels il habite. C'est là un point d'anthropologie comparée que nous avons mis hors de contestation, dans plusieurs publications."

"According to the last tables of the French establishments in Algeria, the total number of births, from 1830 to 1851, have been 44,900, and that of the deaths 62,768"!!! This fact applies to all the provinces, and shows that the climate tends to the extermination of Europeans.

The official statistics also show that the *Mussulman* (Moorish) population is steadily decreasing, in the cities. Dr. Boudin asks: "Is this diminution the effect of want, or of demoralization? is it to be explained by the cessation of unions between the native women and the Turkish soldiers? or, finally, is it explained by that mysterious law, in virtue of which inferior races seem destined to disappear through contact with superior races?"

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As this subject of *home* acclimation is one of too much importance to be allowed to rest on the opinion of any one individual, I have taken the liberty of writing to several of my professional friends, for the results of their observations in different localities and States. All the answers received confirm fully my assertion, that the Anglo-Saxon race can never be acclimated against marsh malaria. I should remark, that the following letters were written with the haste of private correspondence, and not with the idea of publication. The first letter is from Dr. Dickson, the distinguished Professor of Practice in the Charleston Medical College.

"CHARLESTON, *May* 16, 1856.

"MY DEAR DOCTOR.—I hasten to reply to yours of the 9th inst., received by yesterday's mail.

"1. 'The Anglo-Saxon race can never become acclimated against the impression of intermittent and bilious fevers, 'periodical,' or 'malarious fevers.' On the contrary, the people living in our low country grow more liable to attack year after year, and generation after generation.

"We get rid of the poison in some places, and thus extend our limits of residence; but in no other way. Drainage, the formation of an artificial surface on the ground, and other incidents of density of population—such as culinary fires, railroad smokes, and the like, aid to prevent the formation of malaria, or correct it.

"BOUDIN (*British and Foreign Rev.*, Oct. 1849) argues against the possibility of such acclimation, dwelling upon the little success and great mortality attending the colonization of Algeria, the European and English intrusion into Egypt and into Hindostan.

"The French, he tells us, cannot keep up their number in Corsica. In the West Indies, the white soldier is twice as likely to die as the black; in Sierra Leone, sixteen times more likely; and this continues permanently.

"In BRYSON'S *Reports on the Climate and Principal Diseases of the African Station*, it is affirmed (p. 83) that, on board the Atholl (a vessel kept some time on the station), the cases of fever have recovered much more slowly than formerly; so that, instead of its being an advantage to be acclimated, it is apprehended that it will be quite the reverse, as the system becomes relaxed and debilitated by the enervating influence of the climate.

"'2. Do *negroes* in this country (rice-field) ever lose their susceptibility to those diseases?' Yes, in very great measure, if not absolutely. If they remain in the same locality, they are scarcely subjects of attack. I use cautious language—too cautious. It is my full belief that they become *insusceptible* of the impression of the cause of periodical, or what we call malarious, fevers. Who ever saw a negro with an ague-cake? I certainly never did. Change of residence begets a certain but very moderate degree of susceptibility. If a house negro be sent to a rice-field, he may be attacked. So, in shifting along the African coast from place to place, the natives of one locality will be seized by fever sometimes at another. BRYSON tells us that Fernando Po is so terribly insalubrious, that negroes brought from any part of the African continent are always sickly there, 'though the natives of the island itself appear to be a healthy and athletic race of people.'

"The same author tells us of the general insusceptibility of the particular race called Kroo-men, all along the coast. This class of people are therefore very useful and available, being hired in preference to others on board the cruisers.

"3. Negroes increase in number on our rice plantations; nay, it is my impression that the rate of increase is greater than on the less malarial cotton plantations. The majority of deaths that do occur, happen in winter and from winter diseases—few dying of fever,

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none or almost none from bilious, intermittents, or remittents, some from typhus or typhoid, or 'typhous' fever.

* * * * * * * *

"I remain, &c.,

"SAMUEL HENRY DICKSON."

There is an interesting fact in the above letter to me, as I have no experience in the rice-field country. I allude to the acclimation of negroes in these flat swamp-lands, and their increase. As far as my observation goes, the *hilly*, rich clay-lands of the interior are, with few exceptions, more liable to malarial fevers than the swamp-lands on the water-courses. The hills in the neighborhood of our swamp-lands are always more sickly than the residences which are *on the river banks*. Professor Dickson says that the rice-field negroes increase more than those on the cotton plantations. Certainly, negroes do suffer greatly on many cotton plantations in the middle belt of the Southern States; and I have seen no evidence to prove that negroes can, in this region, become accustomed to the marsh poison; and my observation has been extensive in four States. A question here arises: Is there any difference in types of those malarial fevers which originate in the flat tide-water rice-lands, and those of the clay-hills, or marsh fevers of the interior? I am inclined to think there is.

The following letter is from my friend Dr. Wm. M. Boling, of Montgomery, Alabama, who has had much experience in this region, and who is well known as one of our best medical writers.

"MONTGOMERY, ALA., *May* 17, 1856.

"DEAR DOCTOR.—Judging from my own observation, I am inclined to believe that there is no such thing as acclimation to miasmatic localities; in other words, that neither residence in a miasmatic locality, nor an attack, nor even repeated attacks, of any of the various shades or forms of miasmatic fevers, confer any power of resistance to what we understand by the miasmatic poison—not regarding yellow fever, however, as belonging to this class of disease. On the contrary, one attack, it seems to me, instead of affording an immunity from, rather increases the tendency or predisposition to another. It would be no difficult matter, I think, to obtain histories of cases of persons born, and continuing to live, in miasmatic localities, who have been subject to repeated attacks of miasmatic fevers, occasionally, during the entire course of their lives—say from a few days after birth to a moderate old age—"from the cradle to the grave." We do, to be sure, meet with persons who have resided for a considerable time in miasmatic localities, without ever having had an attack of any of the forms of the fever in question. Such instances are more common, if I mistake not, among persons who have removed from a healthy into a miasmatic locality, than among such as may have been born and reared in the latter. But it is a rare thing, indeed, according to my observation, to meet with a person, residing in a place where miasmatic diseases are rife, who has had *one attack and no more.*

"Yours, &c.,

"WM. M. BOLING."

It were an easy task to multiply evidence to the same effect; but what has already been said should be sufficient to satisfy any think-

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ing mind.[19] We shall, therefore, leave this point, and turn back again to the Report of Major Tulloch, where we find some interesting facts, respecting the negro race, in the Mauritius, which will not bear curtailment.

Black Pioneers.—"These military laborers have been enlisted for the purpose of relieving the European soldiers from the performance of fatigue and other duties, which subjected them to much exposure. They are all negroes, who have either been born in the Mauritius, or brought from Madagascar and Mozambique, on the eastern coast of Africa. They are described as being a more robust and athletic race than those composing the West India regiments.

"A table exhibits the admissions into hospital and deaths among these troops since 1825. As regards both, the ratio is almost exactly the same as among the black troops and pioneers in the Windward and Leeward command: the former being as 839 to 820, and the latter as 37 to 40 per 1000, of mean strength annually; *so that the Mauritius and West Indies seem alike unsuited to the constitution of the negro.* This shows how vain is the expectation, even under the most favorable circumstances, of that race ever keeping up or perpetuating their number in either of these colonies, when men in the prime of life, selected for their strength and capability for labor, subject to no physical defect at enlistment, and secured by military regulations from all harsh treatment, *die nearly four times as rapidly as the aboriginal inhabitants of the Cape, or other healthy countries, at the same age; and at least thrice as rapidly as the white population of the Mauritius. Indeed, so fast is the negro race decreasing there, that, in five years, the deaths have exceeded the births by upwards of* 6000, *in a population of* 60,000.

"However difficult it may be to assign an efficient cause, it is certain that the inhabitants of different countries have different susceptibilities for particular diseases. Fevers, for instance, have little influence on the negro race, in the Mauritius; for no death has occurred from them, and the admissions have been in much the same proportion as among an equal number of persons in the United Kingdom; but here, as in all other colonies in which we have been able to trace the fatal diseases of the negro, the great source of mortality has been that of the lungs; indeed, more die from that class alone, than of Hottentot troops, at the Cape, from all diseases together; but the latter are serving in their natural climate, the former in one to which their constitution has never adapted, and probably never will adapt itself.

"MAJOR TULLOCH compares the mortality of the negro, from diseases of the lungs, in various colonies. There died annually of these affections, per 1000 of mean strength—

West coast of Africa	6.3
Honduras	8.1
Bahamas	9.7
Jamaica	10.3
Mauritius	12.9
Windward and Leeward Command	16.5
Gibraltar	33.5

"Thus, in his native country, the negro appears to suffer from these diseases in much the same proportion as British troops in their native country; but, so soon as he goes beyond it, the mortality increases, till, in some colonies, it attains to such a height as seemingly to preclude the possibility of his race ever forming a healthy or increasing population.

"It is in vain that we look for the cause of this remarkable difference, either in tempe-

[19] See the distinction between "bilious and yellow fever," in the *Essay* by PROF. RICHARD D. ARNOLD, M. D., of Savannah, read before the Medical Society of the State of Georgia, Augusta, Ga., 1856.

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rature, moisture, or any of those appreciable atmospheric agencies by which the human frame is likely to be affected in some climates more than others; and it is consequently impossible, from any other data than that which the experience of medical records furnishes, to say where this class of troops can be employed with advantage. Nearly two-thirds of the mortality from diseases of the lungs, among negroes, arises from pulmonary consumption; and it is worthy of remark, as showing how little that disease affects the natives of some tropical climates, though it proves so fatal to those of others, that, among 71,850 native troops serving in the Madras Presidency, the deaths by every description of disease of the lungs, did not, on the average of five years, exceed 1 per 1000 of the strength annually."

In the "*Journal of the Statistical Society of London*," will be found another exceedingly interesting paper by the same writer, now Lieut.-Colonel Tulloch, F. S. S., in continuation of the same subject, and giving later statistics.[20] He says:

"The preceding tables apply entirely to European troops serving abroad. It may now prove interesting to extend a similar course of observations to the influence of the same climates on the mortality of native or black troops, during the same periods. Of these, I shall first advert to the Malta Fencibles, composed of persons born in the island.

"The strength of this corps, and the deaths antecedent to the 31st March, 1846, were as follows:

	STRENGTH.	DEATHS.
Year ending 31st March, 1845	575	5
" 1846	574	5

being at the rate of $8\frac{7}{10}$ per thousand, on the average of these two years; while the average from 1825, when this corps was raised, till 1836, a period of eleven years, was 9 per 1000 annually. Thus, this corps proved one of the healthiest in the service; and, as in the case of other troops serving in the colonies, its health and efficiency seem to be on the increase.

"The Cape corps, composed of Hottentots, shows, however, a still lower degree of mortality during the same period: the strength and deaths for these two years having been respectively as follows:

	STRENGTH.	DEATHS.
Year ending 31st March, 1845	420	3
" 1846	448	3
Average of these two years	434	3

being at the rate of 7 per 1000 annually; while the mortality in the same corps, on the average of the thirteen years antecedent to 1836, was 12 per 1000 annually—thus showing a great reduction of late years.

"The ratio of mortality in both those corps has been much below what is usual, even among the most select lives in this country (England); and shows the great advantage, wherever it is practicable, of employing the native inhabitants of our colonies, as a defensive force, in preference to regular troops sent from this country.

"On comparing the diet and habits of men composing these two corps (which exhibit so low a degree of mortality during a long series of years), they will be found diametrically opposite: the Maltese soldier living principally on vegetable diet, and rarely indulging in the use of fermented or spirituous liquors, while the Hottentot soldier, like others of his race, lives principally on animal food, and that of the coarsest description. Owing to the want of rain and the uncertainty of the crops, grain is often very scarce on the eastern

[20] Lieut.-Col. A. M. Tulloch, F. S. S., "*On the Mortality among Her Majesty's troops serving in the Colonies during the years* 1841–5." Read before the Statistical Society, Jan. 21, 1847.

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frontier of the Cape, where this class of troops is principally employed; and they are occasionally without vegetable or farinaceous food for several weeks, at which times they often consume from two to three pounds of meat daily; and their usual meat-ration is at all times as great as that of the European soldier. Intoxication, with ardent and fermented spirits, or by smoking large quantities of a coarse description of hemp, is also by no means uncommon among them; yet has this corps proved as healthy as the Maltese Fencibles, and still more so than the native army of the East Indies, whose comparative exemption from disease has by some been attributed to the simplicity of their diet, and their general abstinence from every species of intoxication. Facts like these show with what caution deductions should be drawn, when the returns of only one class of men are before us; and how necessary it is in this, as in every other species of statistical inquiry, to extend the sphere of observation, with a view to accurate results.

"I shall next advert to a class of troops who, though born within the Tropics, and serving in tropical colonies, are not natives of the climate in which they are stationed. First of these, in number and importance, are the three West India corps, recruited principally from negroes captured in slave-ships, or inhabitants of the west coast of Africa. These men are distributed throughout Jamaica and the West India islands; and take the duty of those stations which long experience has shown to be inimical to the health of Europeans.

"The strength and mortality of this class, for the same two years as were before referred to, have been as follows:

Jamaica.

	STRENGTH.	DEATHS.
Year ending 31st March, 1845	770	17
" 1846	912	36
Average of these two years	841	26½

West Indies.

	STRENGTH.	DEATHS.
Year ending 31st March, 1845	994	23
" 1846	1175	32
Average of these two years	1084	27½

"These troops being frequently removed from island to island, there would be no utility in stating the separate mortality in each, as, in most instances, the calculation would involve broken periods of a year; but, on the whole, it appears that, in Jamaica, the mortality has been at the rate of about 31, and in the West Indies 26 per 1000 of the force annually; while the mortality of the same class of troops, at the same stations, during the twenty years antecedent to 1836, was respectively 30 per 1000 in Jamaica, and 40 per 1000 in the West Indies—thus showing a marked reduction in the mortality at the latter, during the last two years.

"On referring to the preceding results, a very material difference will be found between the mortality of this class of troops, and that of the Cape corps and Maltese Fencibles, who are serving in their native climate: the former being nearly four times as high as either of the latter. Though the climate of the West Indies is probably as warm as that of the interior of Africa" [in which the author is mistaken], "whence the negroes are generally drawn, yet their constitutions never have, and probably never will, become assimilated to it. The high rate of mortality among them can, in no respect, be attributed either to the habits or the duties of the negro soldier; for others of the same race, who are not in the army, suffer in a corresponding proportion" [as we shall take occasion to show, on a large scale.—J. C. N.]

"By a very extensive investigation, into which I entered when engaged in the preparation of the West-India Statistical Report, about seven years ago" [already referred to], "I found that the mortality among the negro slave-population, even including families who

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had been for several generations in these colonies, amounted to about 30 per 1000 annually, of all ages. Very little of this mortality occurred among infant life: it fell principally on persons of mature age; among which class it was nearly double the proportion usually observed among the civil population in this country. That, under such a mortality, the negro race can ever increase, or even keep up their numbers, in the West Indies, appears a physical impossibility; and there is good reason to believe, that the want of labor, so much complained of, and the demand for immigration from other countries, so much insisted on, arises more from the waste of life, than from the increasing cultivation of the soil; and that a careful investigation into the mortality of the negro population, at different ages, would show that the period is not far distant, at which that race would become entirely extinct in the West Indies, but for the occasional accession to their numbers by fresh importations.

"The results on which these observations, as to the mortality of the negro population, were founded, extended, it is true, over a period when slavery prevailed in the island;[21] and it would be interesting to those philanthropists who then attributed the high rate of mortality to that cause, now to trace, from the returns of each island, whether any diminution has taken place since freedom was established among our sable brethren; but when it is shown, by these results, that negro soldiers, in the prime of life, with every advantage, in point of income, clothing, comfort, and medical attendance, which the British soldier enjoys —with precisely the same diet (if that can be considered an advantage), and with much greater regularity of habits than he can boast of, are subject to an annual mortality of from 2½ to 3½ per cent., there is little reason to hope that, whether bond or free, the negro race will ever thrive or increase in the West Indies.

"The same remarks, as regards the unsuitableness of the climate, will, in a great measure, apply to the next class of troops to which I have to advert, viz., the Ceylon Rifle Regiment, *composed of Malays*, brought principally from the Straits of Malacca, for the purpose of serving in Ceylon; where the climate, though equally warm, does not appear by any means congenial to their constitution, as must be apparent from the following results regarding the mortality:

	STRENGTH.	DEATHS.
Year ending 31st March, 1845	1952	46
" 1846	1930	36
Average of these two years	1941	41

making an annual mortality of 21 per 1000; while the ratio among the same class of troops, for the twenty years antecedent to 1836, was 27 per 1000 annually.

"Though this mortality is considerably lower than that of the negro troops in the West Indies, it is nearly twice as high as that which occurs among the native troops serving on the continent of India adjacent—a sufficient proof that the Malay race is never likely to become assimilated to the climate of Ceylon; indeed, it has long been a subject of remark, that, though their children have been encouraged to enter the service at a very early age, in order to recruit the force, that expedient has proved insufficient, without the constant importation of recruits from the Malay coast.

"The mortality among this class of troops, as among every other to which I have adverted, has undergone a considerable reduction within the last two years, as compared with the twenty years antecedent to 1836—owing, no doubt, to late improvements and ameliorations in the condition of the soldier; but there is little hope, either in the case of the Malay or the negro, that this reduction will be sufficiently progressive to hold out a reasonable prospect of these races becoming thoroughly assimilated to the climate of Ceylon, in the one case, or the West Indies, in the other.

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[21] It will be made to appear, further on, that *slavery* has nothing to do with this result. On the contrary, emancipation invariably (in America) has increased the ratio of mortality.

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"To ascertain the races of men best fitted to inhabit and develop the resources of different colonies, is a most important inquiry, and one which has hitherto attracted too little attention, both in this and other countries. Had the government of France, for instance, adverted to the absolute impossibility of any population increasing or keeping up its numbers under an annual mortality of 7 per cent. (being that to which their settlers are exposed in Algiers), it would never have entered on the wild speculation of cultivating the soil of Africa by Europeans, nor have wasted one hundred millions sterling, with no other result than the loss of 100,000 men, who have fallen victims to the climate of that country. In such questions, military returns, properly organized and properly digested, afford one of the most useful guides to direct the policy of the colonial legislation: they point out the limits intended by nature for particular races; and within which alone they can thrive and increase. They serve to indicate, to the restless wanderers of our race, the boundaries which neither the pursuit of wealth nor the dreams of ambition should induce them to pass; and proclaim, in forcible language, that man, like the elements, is controlled by a Power which hath said: 'Hither shalt thou come, but no further.'"

We have thus gone through with the statistics of Colonel Tulloch, which are remarkable for their fulness and the unprejudiced tone in which they are given. They would seem to show, very strongly, that certain races cannot become assimilated to certain climates, though they may to other climates far removed from their original birth-place. The British soldiers and civilians enjoy even better health at the Cape Colony than in Great Britain; while the negro, in most regions out of Africa, whether within the Tropics—as in the Antilles, or out of them—as at Gibraltar, is gradually exterminated. We shall now turn our attention to statistics which confirm, in a remarkable manner, the conclusions of Col. Tulloch, respecting the influence of foreign tropical climates on negroes; and, on the other hand, exhibit an increase, in the same class of population, in the United States, almost without a parallel, and certainly unprecedented in any laboring class, taken separately; for the negroes in this country are almost exclusively of that denomination.

The following extract is taken from page 83 of the "*Compendium of the seventh Census*" of the United States, by the able superintendent, J. B. D. DeBow, Esq.

"Slavery, which had existed in all the nations of antiquity, and throughout Europe during the Middle Ages, was introduced at an early day into the Colonies. The first introduction of African slaves was in 1620, by a Dutch vessel from Africa to Virginia. MR. CAREY, of Pennsylvania, in his work upon the slave-trade, says: 'The trade in slaves, to the American colonies, was too small, before 1753, to attract attention.' In that year, MACPHERSON (*Annals of Commerce*) says 511 were imported into Charleston; and, in 1765–6, the number of those imported into Georgia (from their valuation) could not have exceeded 1482. From 1783 to 1787, the British West Indies exported to the Colonies 1392—nearly 300 per annum. These West Indies were then the entrepot of the trade; and though they received nearly 20,000 (MACPHERSON) in the period above-named, they sent to the Colonies but that small number—proving the demand could not have been very large. After a close

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argument, from the ratio of increase since the first census, MR. CAREY is enabled to recur back, and compute the population at earlier periods, separating the native-born from those derived from importations. Setting out with the fact that the *slaves* (blacks) numbered 55,850 in 1714, he finds that 30,000 of these were brought from Africa.

Importations previous to 1715					30,000
"	between 1715	and	1750		90,000
"	" 1751	"	1760		35,000
"	" 1761	"	1770		74,000
"	" 1771	"	1790		34,000
"	" 1790	"	1808		70,000
Total number imported					333,000

"The number since 1790 is evidently too small. Charleston alone, in the four years, 1804–5–6–7, imported 39,075. Making, therefore, a correction for such under-estimate, and a very liberal increase to MR. CAREY's figures, the whole number of Africans, at all times, imported into the United States, would not exceed 375,000 to 400,000.

"'Thus, in the United States, the number of Africans and their descendants is nearly eight or ten to one of those who were imported; *whilst, in the British West Indies, there are not two persons remaining, for every five of the imported and their descendants.* This is seen from the following: Imported into Jamaica previously to 1817, 700,000 negroes—of whom and their descendants but 311,000 remained, after 178 years, to be emancipated in 1833. In the whole British West Indies, imported 1,700,000—of whom and their descendants 660,000 remained for emancipation.'—CAREY." [22]

Here, then, we have reliable statistics, establishing the astounding facts, that while the blacks in the United States have increased *tenfold*, those of the British West Indies have decreased in the proportion of five to two. Of the whole 1,700,000 and their progeny, but 660,000 remained at the time of emancipation. I have not the data at hand to speak with precision; but the fact is notorious, that the diminution in the number of blacks, in the British West Indies, has been going on more rapidly since than before their emancipation. To what causes is all this to be attributed? This is a difficult question, at present, to answer. Certainly, no one will contend that the subjects of Great Britain were less humane to their slaves than those of the United States; or that the negroes in the British West Indies were not in as good a physical condition, in former years, as those of the United States.[23] Climate, then, with the present lights before us, seems to have been the leading cause. There is another, which I have not seen alluded to in these statistics; and which may or

[22] At the time I am writing, the colored population, slave and free, in the United States, must be at least ten to one greater than the importations. This population, in 1850, amounted to 3,638,808; and, at the present moment, October, 1856, exceeds 4,000,000.

[23] The condition, both moral and physical, has been steadily improving, in the United States; and is now much better than that of slaves half a century ago, either here or in the West Indies. [See ample corroborations of present free-negro mortality, at Jamaica, in the "Memorial of the West Indian merchants and others to Mr. Labouchere," just published (London *Post*, Dec. 26, 1856).—G. R. G.]

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may not have its weight, viz., the *mixture of races* and the *law of hybridity*. That the mulattoes have a tendency towards extermination, is believed by many; but whether the white and black races have been mingled in a greater proportion in the British West Indies than in the United States, I have no means now of determining.

The actual ratio of mortality in the slave-population of the United States, I do not think can be arrived at, with certainty, from any statistics yet published. The census of the United States, published by the Government, is perfectly reliable in respect to the actual number of negroes at each decennial period, and the rate of increase in this population; but, I am satisfied that the ratio of mortality, taken from the same volume, should be received with great caution, because I have reason to believe that the planters, from negligence, are greatly wanting in accuracy on this point. The average mortality, for the whole slave-population, is put down in the census at one in sixty. This sounds as though it were below the mark; but, when we reflect on the rapid increase of this population, it may not be so. We have positive data for the mortality of the free negroes in Northern States, where the climate, as well as social condition, is unfavorable to this class; and the ratio is from one death in twenty, to one in thirty annually, of the entire number. In Boston, the most northern point, the mortality is highest; and rather less in New York and Philadelphia. I can procure no statistics from Canada, where the blacks must suffer terribly from that climate.

"The blacks imported from Africa, everywhere beyond the limits of the Slave States of North America, tend to extinction. The Liberian experiment, the most favorable ever made, is no exception to this general tendency. According to the Report of the Colonization Society, for thirty-two years, ending in 1852, the number of colored persons sent to Liberia amounted to 7592—of which number only 6000 or 7000 remained. The slave-holding States sent out as immigrants 6792—the most of whom were emancipated slaves: the non-slave-holding States sent out 457 persons.

"The black race is doomed to extinction in the West Indies, as well as in the Northern States of this republic, if the past be a true index of the future, unless the deterioration and waste of life shall be continually supplied by importations from Africa, or by fugitive and manumitted slaves from Southern States.

"M. HUMBOLDT (*Personal Narrative*) has, with his usual accuracy, compiled, from official sources, the vital statistics of the West India slaves, to near the close of the first quarter of the present century (one decennium before the abolition act of Parliament). He estimates the slaves in these islands at 1,090,000; free negroes, including Hayti, at 870,000; total, 1,960,000. MR. MACGREGOR, in his huge volumes on the progress of America, gives the total aggregate of blacks at 1,300,000 in the year 1847—showing a decline, in the preceding quarter of a century, of 660,000.

"M. HUMBOLDT says that 'the slaves would have diminished, since 1820, with great rapidity, but for the fraudulent continuation of the slave-trade.'

"By another calculation, it appears that, in the whole West-Indian archipelago, the free

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colored numbered 1,212,900; the slaves, 1,147,500; total, 2,360,500—showing a decline, in less than five years, of 400,500, notwithstanding the accession by the slave-trade. * * *

"M. HUMBOLDT says: 'The whole archipelago of the West Indies, which now comprises 2,400,000 negroes and mulattoes, free and slaves, received, from 1670 to 1825, nearly 5,000,000 Africans.'

These extracts are taken from an article by Dr. Bennet Dowler, editor of the "New Orleans Medical Journal" (Sept. 1856), wherein a great many other interesting facts will be found, from the writings of Turnbull, Long, Porter, and Tucker, as well as from his own observations. We commend this article strongly to the attention of the reader.

We however, fortunately, have some statistics which are perfectly reliable, at the South; and which will afford important light on the value of life among the blacks. We allude to those of the city of Charleston, South Carolina.

By the United States' census of 1850, the entire population of Charleston, white and colored, was 42,985—of which 20,012 were white; 19,532 slaves; free colored, 3441; total colored, 22,793.

Some years ago, in several articles in the "Charleston Medical Journal," and the "New Orleans Commercial Review," I worked up the vital statistics of Charleston, from 1828 to 1845, in connection with the subject of life-assurance. The ratio of mortality among the blacks, for those eighteen years, gave an average of deaths per annum of 1 in 42; and that ratio of mortality was much increased by a severe epidemic of cholera, in 1836, which bore almost exclusively on the colored population.

We now propose to commence where we left off; and to give the statistics published by the city authorities, which have been kept with great fidelity, as we have good reason to know. These tables, for ten years, extend from 1846 to 1855, both inclusive; and the census of population being taken only in the year 1850, we must make this the basis of calculation. As this year is about the middle one of the ten above referred to, the population of this year may be assumed as the average of the whole; and if the whole number of colored population, of 1850, be divided by the average number of the deaths from 1846 to 1855, it will give the average mortality for the ten years, and the result must approximate very nearly to the truth.

[The *New York Herald* (Jan. 20, 1857) republishes, from the *London News* (Dec. 30), a "Curious History of the Liberian Republic," confirmatory of the ethnological opinions expressed by us in *Types of Mankind* (pp. 403–4, 455–6), concerning the absolute unfitness of negro-populations for self-government. The *News* pledges itself, moreover, to bring out a Liberian document, containing "a painful disclosure of a state of vice and misery (at Monrovia), which it might make the kind-hearted old Madison turn in his grave to have countenanced or helped to create."—G. R. G.]

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TABLE SHOWING THE NUMBER OF DEATHS, FOR EACH YEAR, AMONG THE COLORED POPULATION OF CHARLESTON, WITH SOME OF THE CAUSES OF DEATH, AND THEIR LONGEVITY.

YEAR.	No. of Deaths.	Diarrhœa, Dysentery, and Enteritis.	Intermittents and Remittents.	Typhus.	Yellow Fever.	Trismus Nascentium and Tetanus.	Organs of Respiration.	AGES.			Whites died of yellow fever this year.
								80 to 90 years.	90 to 100.	Upwards of 100.	
1846.....	349	14	4	3	...	34	68	15	9	2	....
1847.....	330	1	4	5	...	32	70	21	6	2	....
1848.....	310	3	3	6	...	25	56	25	5	2	....
1849.....	369	17	7	10	1	29	75	20	9	4	124
1850.....	482	7	3	12	...	40	91	23	6	1	....
1851.....	533	33	3	13	...	44	118	26	10	10	....
1852.....	721	30	13	30	1	54	138	39	13	7	309
1853.....	688	20	3	18	...	53	138	25	12	3	....
1854.....	756	42	5	14	15	55	140	40	13	4	612
1855.....	686	41	4	10	...	56	118	34	18	3	....

Among the causes of death, we have selected only those which belong particularly to the climate, and those which press most on the blacks. It appears that very few died from bowel complaints or marsh fevers; nor do the whites here suffer much more from any of these, except yellow fever. Fifteen of the colored people died one year from yellow fever; but, doubtless, they were mostly *mulattoes*.

A good many die from *marasmus* — most of which cases are scrofula; but the term is often used without a very definite meaning; and we have, therefore, not put it in the above table. *Trismus nascentium* and *tetanus* form a very large item — an average of 42 per annum; being about 7 to 1, compared to the whites. The greatest outlet of life will be found in the organs of respiration. The ratio of these, to deaths from all causes, is, among the colored population, 19.3 per cent.; and, among the whites, the deaths from diseases of the respiratory organs give a ratio of 17.8 per cent. It should be remarked, that the mortality from this class of diseases, among whites, in the tables of Charleston, is really greater than it should be; for many persons come from the North to Charleston, to remain either permanently or for a short time, on account of weak lungs or actual phthisis, and die there—thus giving a percentage of deaths, from this cause, larger than would be accounted for by local causes. The colored population, on the contrary, is a native and fixed class. This colored population, too, suffers more than the whites from typhus and all epidemic diseases, except yellow fever.

But one of the most remarkable features in this table, is the great longevity of the blacks. While the whites, in a nearly equal aggregate of population, give but 15 deaths between 90 and 100, and but

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1 death above 100 years, the blacks, for the same period of ten years, give 101 deaths between 90 and 100 years of age, and 38 deaths over 100 years!

There have been many disputes about the comparative longevity of races; but all the statistics of our Southern States would seem to prove, that the negroes are the longest-lived race in the world; and if a longevity of any other race can be shown, equal to the blacks of Charleston, we have been unable to find the statistics.

On a review of the tables of mortality from Charleston, it will be seen that the average mortality of the colored population, for the last ten years, is 1 in 43.6—about the same ratio as the eighteen previous years. When it is remembered that this is exclusively a laboring class, and including a considerable proportion of free colored population, it cannot but excite our wonder. It proves two points: 1. That the black races assimilate readily to our climate; 2. That they are here in a more favorable condition than any laboring class in the world. It should, perhaps, be remarked, that, in a warm climate, a pauper population and laboring class do not suffer from the want of protection against cold and its diseases; which, at the North, cause, among these classes, a large proportion of their mortality. Even in the sickliest parts of our Southern States, there are more examples of longevity, among the *whites*, than are seen in cold climates; for the reason, I presume, that the feebleness of age offers little resistance to the rigor of northern climates. This, however, does not prove that the average duration of life is greater South than North.[24]

We have, thus far, called attention almost exclusively to two extremes of the human family, viz., the white and black races; and, except incidentally, have said little about the intermediate races, and the influence of the climate and diseases of America upon them. We now propose to take a glance at these points; and must express our regret, at the outset, that our statistics and other means of information here become much less satisfactory. We are not, however, wanting in facts to show, that the element of *race* here, as elsewhere, plays a conspicuous part. We have already alluded to the fact, that the negroes are almost entirely exempt from the influence of yellow fever; and, at one time, supposed that the susceptibility to this disease was nearly in direct ratio to the fairness of complexion; but this idea, as we shall see, requires modification.

[24] If the city of Charleston gives so low a rate of mortality as 1 in 43.6 for the blacks and mulattoes, it is presumable that the rural districts throughout the South will give a much lower rate than in towns. Negroes suffer much less from consumption in the country than in towns.

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It is perfectly true, as respects the mixed progeny of the blacks and whites; for it is admitted everywhere, at the South, that the susceptibility of this class is in direct ratio to the infusion of white blood; but the American Indians of the table-lands, as the Mexicans, and the mixed bloods of Spaniards and Mexicans, are infinitely more liable to yellow fever, than mulattoes of any grade. This law of color would seem to apply to African and Asiatic races, but not to the aboriginal races of America.

The following extract, from a document of the highest authority, will, I am sure, be read with peculiar interest, in this connection.[25]

"Of all protections, that of *complexion* was paramount. When the ships' crews were disabled by sickness (and that was in the majority of instances), their places were supplied by negro sailors and laborers. On board many vessels, black labor alone was to be seen employed; yet, among these laborers and stevedores, *a case of yellow fever was never seen.* If to the table of thirteen months' admissions to the hospital, already given, be added a classified census of the population of the colony, information is given which enables us to arrive at something like precise knowledge on this subject. (See table, *infra*, page 394.)

"From this table, it would appear that the liability of the white races to yellow fever, as compared with the dark, is as 13.19 per cent. to ·00004. But this would be rather an overestimate of the risks of the whites; for, although the calculation is correct for one day, it is not for the whole thirteen months. During the year 1852, 7670 seamen, the crews of vessels, arrived at the port of Georgetown. If we add one-twelfth to this sum, it will make a total of 8309, estimated all as white, who, for a longer or shorter period, were exposed to the endemic influence. This number should be added to that of the white population exposed, and the percentage of liability will be as follows: *whites*, 8·436; *darks*, ·00004. This computation is irrespective of the effects of *residence* on the constitution. But the numbers afforded by the census returns are sufficiently great and detailed to authorize a purer and more ultimate analysis of the effects of complexion, or, in other words, *cutaneous organization*, on the liability to yellow fever among the population of the colony. We find that, of 7890 African (black) immigrants, none contracted yellow fever.

"Of 9278 West India islanders (black and mulatto), 15, or ·16 per cent. contracted yellow fever; of 10,978 *Madras and Calcutta coolies* (black, but fine-haired), 42, or ·38 per cent. contracted yellow fever; 10,291 Portuguese immigrants (white), 698, or 6·2 per cent. contracted yellow fever.

"From the foregoing, the importance of the skin, or that constitution of the body which is associated with varieties of the dermal covering, in the etiology of yellow fever, is at once apparent."

The proportion of *white* to the *dark* races, according to our author, was 14,726 to 127,276; while the admissions to the public hospitals, for yellow fever, were 1947 of the former to 59 of the latter. He puts down the Portuguese as *whites*—whereas, they are by no means a fair-skinned race, compared with the Anglo-Saxons and other white races; and their mortality corresponded with their complexion: it was intermediate between the two extremes.

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[25] DANIEL BLAIR, M.D., Surgeon-General of British Guiana, *Report on the first eighteen months of the fourth Yellow Fever Epidemic of the British Guiana.* See *British and Foreign Med. Chir. Rev.*, January and April Nos., 1855.

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Dr. J. Mendizabel writes me: "The coolies are, in this place (Vera Cruz), as well as in the West Indies, exempt from yellow fever."

From all the information we are able to procure, it seems clear that the Chinese, in Cuba, are much less liable to fever than Europeans; but there are no statistics on this point which will enable us to deal in figures.

The same difficulty exists with regard to statistics for the Mexican races; but it is certainly the impression of the best-informed physicians in that country, with whom we have corresponded, that the pure-blooded Mexicans suffer more from yellow fever than either the pure-blood Spaniards, or the mixed bloods. It is asserted, also, that the cross-breeds of negroes and Mexicans are liable to this disease just in proportion to the blood of the latter race—as is the case with the cross-breeds of whites and negroes.

Yellow fever, with perhaps few exceptions, has a preference for the races of men in proportion to the lightness of complexion—showing its greatest affinity for the pure white, and least for the jet black.[26] It is remarkable that the plague prefers the reverse course—as the following extract, from the best of all authorities on the subject, will prove.

"The plague, in Egypt, attacks the different races of men; but all are not equally susceptible. Thus, *in all the epidemics*, the negro race suffers most; after these, the Berbers or Nubians; then the Arabs of Hedjàz and Yemen; theu the Europeans; and, among these, especially the Maltese, Greeks, and Turks, and generally the inhabitants of South Europe"![27]

A reference to Dr. De la Roches' ample statistics of mortality from yellow fever, will show, beyond dispute, that, of the number attacked, the highest ratio of mortality is almost invariably among the pure white races—as the Germans, Anglo-Saxons, &c. This has been accounted for by the fact, that they come from cold latitudes; and it has grown into an axiom, that the further north the race, the more liable it is to yellow fever. Now, it is easily shown that this position is not tenable: the contrary is proven, by observations on the Mexican races. There is scarcely any part of the country of Mexico, which is, to any extent, populated, that can be called cold; and yet the Mexicans from the table-lands are, perhaps, little less liable to yellow fever than Germans; and their own writers assert that they are quite as much so.

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[26] As far as we can obtain facts, the dark European, Asiatic, and African races, all show less susceptibility to yellow fever than the strictly white; and the red man of America, if an exception, we believe is the only one. It is as vain to attempt to explain his susceptibility, as it is the exemption of negroes and mulattoes: it is a *physiological law of race.*

[27] A. B. Clot-Bey, *De la Poste*, 1840, p. 7; and *Coup d'Œil sur la Peste*, 1851.

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"Mexico is divided, as respects climate, into the *tierras calientes*, or hot regions, the *tierras templadas*, or temperate regions, and the *tierras frias*, or cold regions. The first include the low grounds, or those under 2000 feet of elevation. The mean temperature of the first region, between the Tropics, is about 77° Fahr.; being 14° to 16° above the mean temperature of Naples. The *tierras templadas*, which are of comparatively limited extent, occupy the slope of the mountain chains, and extend from 2500 to 5000 feet of elevation. The mean heat of the year is from 68° to 70° Fahr.; and the extremes of heat and cold are here equally unknown. The *tierras frias*, or cold regions, include all the vast plains elevated 5000 feet and upwards above the level of the sea. In the city of Mexico, at an elevation of 7400 feet, the thermometer has sometimes fallen below the freezing point. This, however, is of rare occurrence; and the winters there are usually as mild as in Naples. In the coldest season, the mean heat of the day varies from 55° to 70°. The mean temperature of the city is about 64°, and that of the table-lands generally about 62°; being nearly equal to that of Rome."[28]

With regard to the great susceptibility of Mexicans of the table-lands, and even those of Metamoras, and other places in the low-lands, when for the first time exposed, we need only refer the reader to the "*Report of the Sanitary Commission of New Orleans on the Epidemic Yellow Fever of* 1853," where ample testimony will be found.

The report of Dr. McWilliam, on the celebrated epidemic of yellow fever at *Boa Vista*, in 1845, will be found interesting, in this connection; and is remarkable for its minute detail and accuracy. He says:

"The inhabitants consist chiefly of dark mulattoes, of various grades of European intermixture; free and enslaved negroes; with a small proportion of Europeans, principally Portuguese and English.

"*Rate of Mortality from Yellow Fever in Porto Sal Ray.*

EUROPEANS.

Portuguese.—Number exposed to the fever	53	
" " attacked with fever	47	
" " died "	25	
" Ratio of deaths in the population	1 in 2·1	
" " number attacked	1 " 1·8	
English, including two Americans, exposed to the fever	11	
" Number attacked	8	
" " died	7	
" Ratio of deaths in population	1 in 1·6	
" " number attacked	1 " 1·1	
French.—Number exposed to fever	2	
" " attacked by fever	2	
Spaniards.—Number exposed, and not attacked	2	

[28] McCulloch's Geographical Dictionary.

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NATIVE POPULATION.

Free	666
Slaves	249
Total	915
Died, 65 free and 3 slaves	68
Ratio of deaths in native population	1 in 13·4"

In this table, it will be seen that the ratio of deaths increased as the complexion darkened. Most of the deaths among the native population were among the *mulattoes*, and not blacks.

The Spanish and Portuguese population, who are dark compared with Anglo-Saxons, suffer severely from yellow fever; but do not, it seems, of those attacked, die in as great a ratio as the fairer races. They are very generally attacked in their towns, in consequence of crowded population, bad ventilation, and filthy habits.

One of the ablest statisticians of the day shows, by figures, that yellow fever, in the Antilles (where English and French are the principal fair races), does not attack so large a portion of the population; but is much more fatal there than in Spain. In the latter country, on the other hand, he says, almost the whole population of towns are attacked; but the mortality is much less, in proportion to the number of cases. He attributes this universality of attack to the crowded population and filth of the Spanish towns, and to there being *no acclimated population* where the disease has been most fatal. Yellow fever is *endemic* in the Antilles, and only occasional in Spain.[29]

It is remarkable that these circumstances make no difference in the susceptibility of the negro: he always sleeps in badly ventilated apartments; is always filthy; and, in the hottest weather, will lie down and sleep, with a tropical sun pouring down upon his bare

[29] MOREAU DE JONNÈS, *Monographe de la Fièvre Jaune*, &c. pp. 312–13.

In these new questions of the liability to, or exemption from, local morbific influence, of distinct types of man, we possess as yet but few statistics. Every authentic example, therefore, becomes interesting. I find the following in DUMONT D'URVILLE (*Voyage de la Corvette L'Astrolabe, executée pendant les années* 1826–9, Paris, 1830, "*Histoire du Voyage*," V., pp. 120 seqq.). The island of Vanikoro, "Archipel de la Pérouse," where this great navigator perished, is inhabited exclusively by *black* Oceanians, who there enjoy perfect health. Yet, so deadly is the climate, that the natives of the adjacent island of Tikopia, who belong to the cinnamon-colored and distinct *Polynesian* race, taken thither as interpreters by D'Urville, never ventured to sleep ashore, in dread of the malarial poison which ever proved fatal to themselves, however congenial to the *blacks*. Capt. Dillon's crew, previously, as well as D'Urville's French crew, suffered terribly from the effects of their short anchorage there. This pathological fact is another to the many proofs, collected in our volume, that the *black* race of Oceanica is absolutely unconnected by blood with the *Polynesians proper*. See portraits of "Vanikoro-islander" and "Tikopia-islander" (Nos. 39, 40, of our *Ethnographic Tableau, infra*), for evidence of their absolute difference of type.

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head, during the day; and, in the hottest night, will sleep with his head enveloped in a filthy blanket, to keep the musquitoes from annoying him; and yet is exempt from yellow fever, while it is raging around him.

Rio Janeiro has a population of 100,000 whites, and 200,000 blacks and mixed bloods. The former are mostly Portuguese; and it is difficult to explain their exemption from yellow fever, in the epidemic of 1849–50 (which has continued its march northwards, and so ravaged the seaports and other towns of the United States since)—I say it is difficult to explain the exemption, on any other ground than that of race. Not more than 3 or 4 per cent. of the Brazilians attacked, died; while 29 per cent. of the seamen (foreigners) died.

It has been repeatedly asserted, that yellow fever never appeared in Rio previously to this date; but it is exceedingly questionable whether it has not occurred there in a mild form, but with so little mortality as not to create alarm. Yellow fever does unquestionably occur in all grades. We published, some years ago, in the "Charleston Medical Journal," a sketch of the epidemic which prevailed in Mobile in 1847—of so mild a grade as not to prove fatal probably in more than 2 per cent. of those attacked. A reference to the "Report of the New Orleans Sanitary Commission," will show that, according to the concurrent testimony of the leading physicians of Rio, the fevers of that city had assumed an extraordinary type for several years previously to the epidemic of 1849–50; and that many of the cases differed in no way from yellow fever: even black vomit was seen in some cases. It is presumable, therefore, that the population had been undergoing *acclimation* against this disease, for several years, without knowing it. Our observation has satisfied us, that the dark-skinned Spaniards, Portuguese, and other south Europeans, as well as the Jews, are more easily and thoroughly acclimated against yellow fever, than the fairer races.[30]

It has been stoutly maintained, by many writers, that intermittent, remittent, and yellow fever, are but grades of the same disease; and as the first two forms are endemic, at Rio, the escape of the inhabitants from yellow fever, in the late epidemic, has been accounted for by acclimation through those marsh fevers. I will not, however, stop to argue with any one who contends for the identity of marsh and yellow fevers, in our present day: if their *non-identity* be not now proven, it is vain to attempt to establish the non-identity of any two diseases. That very epidemic continued its march, during

[30] The reader is referred to *Report of the New Orleans Sanitary Commission*, for much valuable information about Rio Janeiro.

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five years, from Rio to New York; and ravaged hundreds of places where remittent fevers were more common and more violent than in Rio. To say nothing of countries further south, all the region from New Orleans to Norfolk is dotted with malarial towns, in which yellow fever has prevailed with terrible fatality.

The following extract is from one of the most competent authorities, on this subject, in the United States:

"The immunity of the African race from yellow fever is a problem unsolved; but of the highest import in physiology and etiology. Whether this immunity be owing to color, or to an unknown transmissible and indestructible modification of the constitution, originally derived from the climate of Africa, or from anatomical conformation or physiological law, peculiar to the race, is not easy to determine. It does not appear that yellow fever prevails under an African sun; although the epidemic of New Orleans, in 1853, came well nigh getting the name 'African yellow fever,' 'African plague:' it was for weeks so called. Although non-creolized negroes are not exempt from yellow fever, yet they suffer little from it, and rarely die. On the other hand, they are the most liable to suffer from cholera" [and typhoid fever.—J. C. N.] "As an example of the susceptibility of this race, take the year 1841: among 1800 deaths from yellow fever, there were but three deaths among the blacks, two having been children; or 1 in 600, or 1 in 14,000 of the whole population."[31]

The Doctor goes on to show "that the same immunity from death, in this disease, is enjoyed by the black race throughout the yellow-fever zone."

The investigations of Dr. Dowler (and there is no one more competent to examine a historical point of this kind) lead him to the conclusion, that yellow fever is not an African disease. If this be true, it is a very strong argument in favor of specific distinctness of the negro race. We have abundant evidence, in the United States, that no exposure to high temperature or marsh effluvia can protect an individual against the cause of *yellow* fever. The white races who have been exposed to a tropical sun, and lost much of their primitive plethora and vigor, are, as a general rule, less *violently* attacked by yellow fever; but the negro gains his fullest vigor under a tropical sun, and is everywhere exempt from this disease.[32]

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[31] BENNET DOWLER, M. D., "*Tableau of the Yellow Fever of* 1853, *with topographical, chronological, and historical sketches of the Epidemics of New Orleans, since their origin in* 1796."

[32] The works of M. le Dr. Bondin—now Médecin en chef de l'Hôpital Militaire du Roule, Paris, so well known as a distinguished army physician, at home, in Greece, and in Algeria, are the first, so far as we know, in any language, that approach this question of races, in relation to climate, with a truly philosophical spirit. He kindly sent us, several years ago, the following essays, the titles of which will show the range of his investigations:—"Études de Géologie Médicales, &c."—"Études de Pathologie Comparée, &c."—"Études de Géographie Médicales, &c."—"Lettres sur l'Algérie"—"Statistique de la population et de la colonisation en Algérie"—"Statistique de la mortalité des Armées."

We have, in our essay, made frequent use of these volumes, from notes we had taken while reading them; and should have made more direct reference to them, if we had had

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But it is time to bring this chapter to a close. It was stated, at the beginning, that our leading object was to study man in his relations to what we defined *Medical Climate;* and we have adhered as

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the originals at hand; but some of them, unfortunately, had been loaned out, and did not reach us in time.

In these essays, the reader will find a mass of very important statistical matter, bearing on the influence of climates on races, &c. He confirms all our assertions with regard to the comparative exemption of negroes from malarial diseases, and their greater liability to typhoid and lung diseases, as well as cholera. He further shows the interesting fact, that the Jews exhibit a peculiar physiology and pathology; with other singular data, from which my space and subject only permit me to condense a few vital statistics illustrative of the present enormous increase of the "chosen people."

In 1840, the Jews in Prussia numbered 190,000. They had increased by 50,000 (35 per cent.) since the census of 1822 The Christians, in the same kingdom, in 1822, were, 11,519,000; and, in 1840, 14,734,000 (only 18 per cent. of augmentation). During these eighteen years, births among the Jews exceeded deaths by 29 per 100; and, among the Christians, only 21. "The increase of the Jewish population is the more remarkable, because, between 1822 and 1840, some 22,000 Prussian Jews embraced Christianity, whilst there was no instance wherein a Christian had accepted Judaism."

In Prussia, "out of 100,000 individuals, are reckoned:

	CHRISTIAN.	JEWISH.
Marriages	893	719
Births	4001	3546
Deaths, still-born comprised	2961	2161"

the increase being due to excess of births over deaths, among the Jews. Besides, the Jews are longer lived:—their women do not work in factories, nor labor whilst nursing; so that, upon 100,000 infants, we find

	"CHRISTIANS.	JEWS.
Still-born	3,569	2,524
Died in the first year	17,413	12,935"

Again, the men are rarely sailors, miners, &c. They are sober. They marry young. Upon 100,000, the Christians bring forth 280 illegitimate children; the Jews only 67. The proportion of *boys* is greater among the Israelites. They are subject to cutaneous and ophthalmic diseases, since the times of Tacitus, and of Moses; but are wonderfully exempt from heavier scourges—from *plague*, in 1336; from *typhus*, in 1505 and 1824; from *intermittent fevers*, at Rome, in 1691; from *dysentery*, at Nimègue, in 1736. *Croup* is rare among their children; and, at Posen, where Shlaves have the *plica Polonica* as 1 in 33, and Germans as 1 in 65, the Jews only suffer as 1 in 88.

They have more old men and more children than Christians; and their health is everywhere better—owing, in part, to *race* preserving itself pure through intermarriage; and especially to the *hygiène* enjoined upon them by their religion.

Tacitus, when the Jews were exiled to Sardinia, wrote "Et si ob gravitatem cœli interiissent, vile damnum!"—and again, "Profana illis omnia quæ apud nos sana; rursum concessa apud illos quæ nobis incesta." On which Dr. Boudin observes:[38] "This saying of the great historian is at least as true at the physical as at the moral-order point of view. The more one studies the Jewish race, the more one perceives it subjected to pathological laws which, in the double aspect of aptitude and immunities, establish a broad line of demarcation between it and the populations amid which it happens to dwell."

[38] *Études statistiques sur les lois de la Population*, Paris, 1849, pp. 24–6.

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closely to the plan as the complex nature of the subject would permit.

After the train of facts adduced, it will hardly be denied that the historical races—those whose migrations have brought them within the range of investigation—have their appropriate geographical ranges, beyond which they cannot go with impunity; and there is ample ground for the belief, that the same general law applies equally to all other races that have not yet been subjected to statistical scrutiny. Nor could any other result have been rationally looked for, by one who reflects on the wonderful *harmony* that pervades the infinite works of Nature; and which is nowhere more beautifully illustrated, than in the adaptation of animals and plants to climate, as exhibited in the innumerable Faunas and Floras of the earth.

Viewed anatomically and zoologically, man is but an animal; and governed by the same organic laws as other animals. He has more intelligence than others; combines a moral with his physical nature; and is more impressible than others by surrounding influences. Although boasting of *reason*, as the prerogative that distinguishes him, he is, in many respects, the most unreasonable of all animals. While civilization, in its progress, represses the gross vices of barbarism, and brings the refinements of music, poetry, the fine arts, together with the precepts of a purer religion, it almost balances the account by luxury, insincerity, political, social, and trading vices, which follow its march everywhere. If the ancient Britons and Kelts be fairly balanced against the modern Anglo-Saxons, Yankees, and Gauls, it will be hard to say in which scale the most true virtue will be found. Fashion, in our day, has substituted moral for physical cruelty. The ancient barbarians plundered, and cut each others' throats. Civilized man now passes his life in scandal and the tricks of trade. Look around, now-a-days, at the so-called civilized nations of the earth, and ask what they have been doing for the last half century? We see man everywhere, not only warring against laws, voluntarily imposed upon himself for his own good, but bidding defiance to the laws of God, both natural and revealed. He is the most destructive of all animals. Not satisfied with wantonly destroying, for amusement, the animals and plants around him, his greatest glory lies in blowing out the brains of his fellow-man; nay, more, his chief delight is to destroy his own soul and body by vice and luxury. Nor does his rebellious and restless spirit suffer him to be content with a limited field of action: he forsakes the land of his birth, with all its associations, and all the comforts which earth can give, to colonize foreign lands—where he knows full well that a thousand

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hardships must await him, and with the certainty of risking his life *in climates that nature never intended him for.* One generation never profits by the experience of another, nor the child by that of its parents. Who will undertake to estimate the amount of human life sacrificed, since the discovery of Columbus, by attempts to colonize tropical climates?

Naturalists have divided the earth into zoological realms—each possessing an infinite variety of animals and plants, peculiar to it; but this is not the place for details on this head. To the reader who is not familiar with researches of this kind, we may venture a few plain remarks. When the continent of America was discovered (with a few exceptions in the Arctic Circle, where the continents nearly touch), its quadrupeds, birds, reptiles, fishes, insects, plants, all were different species from those found in the Old World. Hence the conclusion, that the whole Fauna and Flora of America were *here created.* If we go on to compare other great divisions of the world, such as Asia, Europe, Africa, Australia, Polynesia, the same general law holds throughout: each division possesses its peculiar animals and plants, having no connection by descent with others; and each group forming a grand and harmonious zoological province.

The question naturally arises—*Does man form an exception to this universal law?* Can he, by any evidence, human or otherwise, be thus separated from the organic world? We think not. In each one of these natural realms, we find a type of man, whose history is lost in antiquity; and whose physical characters, language, habits, and instincts, are peculiar;—whose organization is in harmony with the station in which he is placed, and who cannot be transferred to an opposite climate without destruction.

Recent researches enable us to trace back many of those types of man, with the same characteristics that mark them now, at least 4000 years. In Egypt alone, as proven by her monuments, were seen, in those early times, through the agency of wars and commerce, Egyptians, Berbers, Nubians, Abyssinians, Negroes, Ionians, Jews, Assyrians, Tartars, and others,—with the same lineaments they now present, and obeying, no doubt, the same physiological and pathological laws. In fact, so well defined were the races in the time of the early Pharaohs, that the Egyptians had already classified them into *red*, *white*, *yellow*, and *black;* and each of the types, then as now, formed a link in a distinct Fauna.[34]

Let us now ask the reader to reflect on the long chain of facts presented in this and the preceding chapters, and calmly decide whether we are justified in drawing the following conclusions:

[34] See *Types of Mankind;* and M. PULSZKY's chap. II, *infra.*

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1. That the earth is naturally divided into zoological realms—each possessing a climate, Fauna, and Flora, exclusively its own.

2. That the Fauna of each realm originated in that realm, and that it has no consanguinity with other Faunas.

3. That each realm possesses a group of human races, which, though not identical in physical and intellectual characters, are closely allied with one another, and are disconnected from all other races. We may cite, as examples, the white races of Europe, the Mongols of Asia, the blacks of Africa, and the aborigines of America.

4. That the types of man, belonging to these realms, antedate all human records, by thousands of years; and are as ancient as the Faunas of which each forms an original element.

5. That the types of man are separated by specific characters, as well marked and as permanent as those which designate the species of other genera.

6. That the climates of the earth may be divided into PHYSICAL and MEDICAL; and that each species of man, having its own physiological and pathological laws, is peculiarly affected by both climates.

7. That no race of man can be regarded as cosmopolite; but that those races which are indigenous to latitudes intermediate between the equator and poles, approach nearer to cosmopolitism than those of the Arctic or the Torrid Zone.

8. That the assertion, that any one race ever has, or ever can be, assimilated to all physical or all medical climates, is a hypothesis unsustained by a single historical fact, and opposed to the teachings of natural history.

J. C. N.

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CHAPTER V.

THE MONOGENISTS AND THE POLYGENISTS:

BEING AN EXPOSITION OF THE DOCTRINES OF SCHOOLS PROFESSING TO SUSTAIN DOGMATICALLY

THE UNITY OR THE DIVERSITY

OF

HUMAN RACES;

WITH AN INQUIRY INTO THE ANTIQUITY OF MANKIND UPON EARTH, VIEWED CHRONOLOGICALLY, HISTORICALLY, AND PALÆONTOLOGICALLY.

BY GEO. R. GLIDDON.

"He is the freeman whom the Truth makes free,
And all are slaves beside."

COWPER.

INTRODUCTORY.

"LES recherches géographiques sur le siége primordial, ou, comme on dit, sur le berceau de l'espèce humaine, ont dans le fait un caractère purement mythique. 'Nous ne connaissons,' dit Guillaume de Humboldt, dans un travail encore inédit sur la diversité des langues et des peuples, 'nous ne connaissons ni historiquement, ni par aucune tradition certaine, un moment où l'espèce humaine n'ait pas été séparée en groupes de peuples. Si cet état de choses a existé dès l'origine, ou s'il s'est produit plus tard, c'est ce qu'on ne saurait décider par l'histoire. Des légendes isolées se retrouvant sur des points très-divers du globe, sans communication apparente, sont en contradiction avec la première hypothèse, et font descendre le genre humain tout entier d'un couple unique. Cette tradition est si répandue, qu'on l'a quelquefois regardée comme un antique souvenir des hommes. Mais cette circonstance même prouverait plutôt qu'il n'y a là aucune transmission réelle d'un fait, aucun fondement vraiment historique, et que c'est tout simplement l'identité de la concep-

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tion humaine, qui partout a conduit les hommes à une explication semblable d'un phénomène identique. Un grand nombre de mythes, sans liaison historique les uns avec les autres, doivent ainsi leur ressemblance et leur origine à la parité des imaginations ou des réflexions de l'esprit humain. Ce qui montre encore dans la tradition dont il s'agit le caractère manifeste de la fiction, c'est qu'elle prétend expliquer un phénomène en dehors de toute expérience, celui de la première origine de l'espèce humaine, d'une manière conforme à l'expérience de nos jours; la manière, par exemple, dont, à une époque où le genre humain tout entier comptait déjà des milliers d'années d'existence, une île déserte ou un vallon isolé dans les montagnes peut avoir été peuplé. En vain la pensée se plongerait dans la méditation du problème de cette première origine: l'homme est si étroitement lié à son espèce et au temps, que l'on ne saurait concevoir un être humain venant au monde sans une famille déjà existante, et sans un passé. Cette question donc ne pouvant être résolue ni par la voie du raisonnement ni par celle de l'expérience, faut-il penser que l'état primitif, tel que nous le décrit une prétendue tradition, est réellement historique, ou bien que l'espèce humaine, dès son principe, couvrit la terre en forme de peuplades? C'est ce que la science des langues ne saurait décider par elle-même, comme elle ne doit point non plus chercher une solution ailleurs pour en tirer des éclaircissements sur les problèmes qui l'occupent.'"[1]

Such is the language, and these are the mature opinions, of two brothers, than whom the world's history presents none more illustrious. Here the ultimate results of Wilhelm von Humboldt, among the most acute philologists of his generation, stand endorsed by that "Nestor of science," Alexander von Humboldt, whose immortal labors in physical investigation stretch over nearly three cycles of ordinary human vitality.

I subscribe unreservedly to every syllable contained in the above citation. According to my individual view, this paragraph condenses the "ne-plus-ultra" of human ratiocination upon mankind's *origines*. With this conviction, I proceed to set forth the accident through which it prefaces my contribution to our new work upon anthropology.

My excellent and learned friend M. Gustave d'Eichthal—so long Secretary of the parental *Société Ethnologique de Paris*, and author

[1] Alexandre de Humboldt, "*COSMOS*. Essai d'une Description Physique du Monde"—traduit par H. Faye. 1re. partie, Paris, Gide & Cie., 1846, in 8vo., pp 425–7. I refer to the first French edition: the copy now used having been obtained by me at Paris, on its first week's issue.—G. R. G.

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of many erudite papers—amidst all kinds of scientific facilities for which I feel proud to acknowledge myself debtor to himself and many of his colleagues (MM. D'Avezac and Alfred Maury especially), favored me, during my fourth sojourn in France, 1854–5, with a set of their Society's "Bulletins."

Reperusing lately their instructive debate on the problem—"*What are the distinctive characteristics of the white and black races? What are the conditions of association between these races?*"[2] I was led to open an antecedent No.;[3] wherein, after alluding to *Cosmos*—"M. Vivien (de Saint-Martin) observes how, in the extract quoted from M. de Humboldt, that which this illustrious writer terms *the native unity of the human species*, does not seem to imply, as might be thought, the idea of *descent from a single pair.* M. de Humboldt himself, it is true, does not declare himself, as respects this, in a manner altogether explicit. But the opinion of those eminent men upon whose authority he relies, and of whom he cites the words, is, on the contrary, expressed in the most formal manner.

"'Human races, says Johannes Müller,[4] in his 'Physiology of Man,' are the (diverse) forms of a single species, whose unions remain fruitful, and which perpetuate themselves through generation. They are not species of one genus; because, if they were, upon crossing[5] they would become sterile. *But*, to know whether existing races of man descend from one or from many primitive men—this is that which cannot be discovered by experience.'"

M. Vivien continues with extracts from the paragraph that heads my essay. Certain typographical *lacunæ*, however, induced a reference to Humboldt's complete work; and the readiest accessible at the moment happened to be OTTÉ's English translation, "from the German."[6]

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[2] *Bulletin de la Soc. Ethnol. de Paris*, Tome Ier., année 1847; "Séances du 23 avril au 9 juillet," p. 59 seqq.—(Vide ante, PULSZKY's chapter, pp. 188–192)

[3] *Id.*, année 1846, pp. 74–6.

[4] *Physiol. des Menschen*, Bd. II, S. 768, 772–4:—and *Kosmos*, Fr. ed., I. p. 425, and p. 578, note 38. Compare SABINE's translation of this passage (I, p. 352–3) with OTTÉ's (I, p. 354).

[5] This doctrine now seems to be a *non-sequitur*, after Morton's researches upon hybridity. Conf., as the first document, "*Hybridity* in animals and plants, considered in reference to the question of the Unity of the Human Species"—*Amer. Jour. of Science and Arts*, vol. III, 2d series, 1847. The substance of Morton's later publications, in the "*Charleston Medical Journal*," may be consulted in "Types of Mankind," 1854, pp. 372, 410: and they have since been enlarged, by DR. NOTT, in HOTZ's translation (*Moral and Intellectual Diversity of Races*, Philadelphia, 12mo., 1856: Appendix B, pp. 473–504) of part of the first volume of DE GOBINEAU.

[6] *Cosmos: a Sketch of a Physical Description of the Universe.* Harpers' American ed., New York, 1850, I, pp. 354–5

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To my surprise, several passages (sometimes in the letter, but oftener in the spirit) did not correspond with the extracts quoted by M. Vivien de Saint-Martin, from the *French* edition of "Cosmos." To the latter I turned. A glance changed surprise into suspicion, which further collation soon confirmed. Having thereby become considerably enlightened, myself, upon the *animus* and the literary fidelity with which foreign scientific works are "done into English," for the book-trade of Great Britain and the United States of America; and inasmuch as sundry theological naturalists, in this country, have latterly been making very free with Humboldt's honored name, —estimated as their authority "par excellence" on the descent of all the diversified types of mankind from "ADAM and EVE;" it may be gratifying to their finer feelings, no less than to their nice appreciation of critical probity, to demonstrate the singular orthodoxy of the *savant* whom we all venerate in common.

Already, in 1846, when transmitting from Paris, to the late Dr. Morton, one of the earliest copies of the *French* edition of "Cosmos," I accompanied it with regrets that the twice-used expression—"la distinction *désolante* des races supérieurs et des races inférieurs"[7]—should have sanctioned the irrelevant introduction of (what others construe as) morbid sentimentalism into studies which MORTON and his school were striving to restrict within the positive domain of science. How completely Morton disapproved of this unlucky term, has been happily shown by his biographer—our lamented colleague, Dr. Henry S. Patterson.[8] But, whilst fully respecting Baron de Humboldt's unqualified opinion—on a doctrine which other great authorities either oppose or hold to be at least moot, viz., *the unity of mankind*—I was not prepared for so much of that which CARLYLE styles "flunkeyism" towards Anglo-Saxon popular credulity (so manfully denounced by Dr. Robert Knox[9]), which both of the English translations of "Cosmos" exhibit.

In the first place, let us open that one which "was undertaken in compliance with the wish of Baron von Humboldt."[10] The possessor

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[7] *Cosmos*, Fr. ed., p. 430; repeated p. 579, note 42.

[8] *Types of Mankind*, "Memoir of Samuel George Morton," p. li–liii.

[9] Of Edinburgh—*The Races of Men: a Fragment.* Philadelphia edition, 12mo, 1850, pp. 11–2, 19, 37, 65, 247–54, 292—one might say *passim.* Allowance made for the age, ten to fifteen years ago, when the MSS. seem to have been written; and divesting his work of much rash assertion, hasty composition, and some national or personal eccentricities, its author can safely boast that it contains more *truth* upon ethnology than any book of its size in the English tongue.

[10] *Cosmos*, &c. "Translated under the superintendence of Lieut.-Col. Edward Sabine, R. A., For. Sec. R. S.;" London, Murray, 2d ed., 8vo, 1847; I, "Editor's Preface; and, for the *omission* complained of, p. 353—after the word 'experience' (438)."

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of the German original, or of Faye's French version, will hunt in vain for the long and noble paragraph above quoted! It is simply expunged: probably not to shock the conservatism of the Royal Society. Promotion might have been stopped, long ago, by the "lords spiritual and temporal," had an officer in H. M. Service dared even to translate such heretical opinions as those avowed by the brothers HUMBOLDT: the "For. Sec." would have soon ceased to be Secretary at all, to any Royal Society.

In the second, we refer to OTTÉ'S translation;[11] learning from his preface—"The present volumes differ from those of Mrs. Sabine in having all the foreign measures converted into English terms, in being published at considerably less than one-third of the price, and in being a translation of the *entire work;* for I have not conceived myself justified in *omitting passages*, simply because they might be deemed slightly obnoxious to *our national prejudices.*" Fair enough this seems. That which routine and expectancies naturally forbade the official to do, "into English," might, one would suppose, be honestly performed by a private individual. Nevertheless, upon verification, we discover this to be, also, as Talleyrand once observed to Castlereagh, "*une très forte supposition!*" By paraphrasis and periphrasis, through dextrous substitutions of milder terms, and a happy adoption of equivocal interpretations, Mr. Otté has effaced the precision of his author's language; obscuring thereby both of the Humboldts' scientific deductions so effectually, that their supposititiously-joint advocacy of "all mankind's descent from Adam and Eve," meets everywhere with the gratitude and applause of wondering theologers!

To render this evident, I have chosen the French translation, above cited, as an appropriate epigraph and introduction to the subjects developed in the present chapter. At foot, the reader will find OTTÉ'S English[12] rendering of the German text; which is like-

[11] *Id.*,—"Translated from the German, by E. C. OTTÉ," and before cited. Harpers' New York edition, 1850. I wonder whether it is the same, textually, as BOHN'S; which doubt inclination does not now prompt me to take some trouble in verifying.

[12] *Extract* from OTTÉ'S *Cosmos*, Amer. ed., pp. 354–5:—

"Geographical investigations regarding the ancient *seat*, the so-called *cradle of the human race*, are not devoid of a mythical character. 'We do not know,' says Wilhelm von Humboldt, in an unpublished work *On the* Varieties *of Languages and Nations*, 'either from history or from authentic tradition, any period of time in which the human race has not been divided into social groups. Whether the gregarious condition was original, or of subsequent occurrence, we have no historic evidence to show. The separate mythical relations found to exist independently of one another, in different parts of the earth, appear to refute the first hypothesis; and concur in ascribing the generation of the whole human race to the union of one pair. The general prevalence of this myth has caused it to be regarded as a traditionary record transmitted from the primitive man to his descend-

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wise subjoined. Unfortunately, want of familiarity with the latter tongue precludes personal comparison of this translation with the original; but, for the accuracy of its French interpretation, we

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ants. But this very circumstance seems rather to prove that it has no historical foundation, but has simply arisen from an identity in the mode of intellectual conception, which has everywhere led man to adopt the same conclusion regarding identical phenomena; in the same manner as many myths have doubtless arisen, not from any historical connection existing between them, but from an identity in human thought and imagination. Another evidence in favor of the purely mythical nature of this belief, is afforded by the fact that the first origin of mankind—a phenomenon which is wholly beyond the sphere of experience—is explained in perfect conformity with existing views, being considered on the principle of the colonization of some desert island or remote mountainous valley, at a period when mankind had already existed for thousands of years. It is in vain that we direct our thoughts to the solution of the great problem of the first origin, since man is too intimately associated with his own race, and with the relations of time, to conceive of the existence of an individual independently of a preceding generation and age. A solution of those difficult questions, which can not be determined by inductive reasoning or by experience—whether the belief in this presumed traditional condition be actually based on historical evidence, or whether mankind inhabited the earth in gregarious associations from the origin of the race—cannot, therefore, be determined from philological data; and yet its elucidation ought not to be sought for from other sources.'"

"Die geographischen Forschungen über den alten Sitz, die sogennante Wiege des Menschengeschlechts haben in der That einen rein mythischen Charakter. 'Wir kennen,' sagt Wilhelm von Humboldt in einer noch ungedruckten Arbeit über die Verschiedenheit der Sprachen und Völker, 'geschichtlich oder auch nur durch irgend sichere Ueberlieferung keinen Zeitpunkt, in welchem das Menschengeschlecht nicht in Völkerhaufen getrennt gewesen wäre. Ob dieser Zustand der ursprüngliche war oder erst später entstand, läszt sich daher geschichtlich nicht entscheiden. Einzelne, an sehr verschiedenen Punkten der Erde, ohne irgend sichtbaren Zusammenhang, wiederkehrende Sagen verneinen die erstere Annahme, und lassen das ganze Menschengeschlecht von Einem Menschenpaare abstammen. Die weite Verbreitung dieser Sage hat sie bisweilen für eine Urerinnerung der Menschheit halten lassen. Gerade dieser Umstand aber beweist vielmehr dasz ihr keine Ueberlieferung und nichts geschichtliches zum Grunde lag, sondern nur die Gleichheit der menschlichen Vorstellungsweise zu derselben Erklärung der gleichen Erscheinung führte: wie gewisz viele Mythen, ohne geschichtlichen Zusammenhang, blosz aus der Gleichheit des menschlichen Dichtens und Grübelns entstanden. Jene Sage trägt auch darin ganz das Gepräge menschlicher Erfindung, dasz sie die auszer aller Erfahrung liegende Erscheinung des ersten Entstehens des Menschengeschlechts auf eine innerhalb heutiger Erfahrung liegende Weise, und so erklären will, wie in Zeiten, wo das ganze Menschengeschlecht schon Jahrtausende hindurch bestanden hatte, eine wüste Insel oder ein abgesondertes Gebirgsthal mag bevölkert worden sein. Vergeblich würde sich das Nachdenken in das Problem jener ersten Entstehung vertieft haben, da der Mensch so an sein Geschlecht und an die Zeit gebunden ist, dasz sich ein Einzelner ohne vorhandenes Geschlecht und ohne Vergangenheit gar nicht in menschlichem Dasein fassen läszt. Ob also in dieser weder auf dem Wege der Gedanken noch der Erfahrung zu entscheidenden Frage wirklich jener angeblich traditionelle Zustand der geschichtliche war, oder ob das Menschengeschlecht von seinem Beginnen an völkerweise den Erbdoden bewohnte? darf die Sprachkunde weder aus sich bestimmen, noch, die Entscheidung anderswoher nehmend, zum Erklärungsgrunde für sich brauchen wollen.'"

("*Kosmos.* Entwurf einer physichen Weltheschreibung," von Alexander von Humboldt. Fünfte Lieferung, Stuttgard und Tübingen, pp. 381–2.)

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possess the highest voucher. M. Faye states:[13] "Another part, relative to the great question of human races, has been translated by M. Guigniaut, Member of the Institute. This question was foreign to my habitual studies: moreover, it has been treated, in the German work, with such superiority of views and of style, that M. de Humboldt had to seek, among his friends, the man most capable of giving its equivalent to French readers. M. de Humboldt naturally addressed himself to M. Guigniaut; and this *savant* has been pleased to undertake the translation of the last ten pages of the text, as well as of the corresponding notes." Consequently, besides the guarantee for exactitude afforded by the name of the erudite translator of *Creuzer's Symbolik*, it may be taken for granted that, whatever the German original may or may not say,[14] Baron von Humboldt, to whom the French edition was peculiarly an offspring of love, endorses the latter without reservation.

It only remains now for me to retranslate M. Guigniaut's French into our own language, in order that the reader may seize the MM. de Humboldts' point of view. To facilitate his appreciation, I mark with **bold type** those expressions requiring particular attention; and, furthermore, insert, between brackets and in *italics*, such deductions as appear to me legitimately to be evolved from them.

"Geographical researches on the primordial seat, or, as it is said, upon the cradle of the human species, possess in fact a character purely mythic. 'We do not know,' says William de Humboldt, in a work as yet inedited, upon the **diversity** of languages and of peoples, 'we do not know, either historically, or through any [*whatsoever*] certain tradition, a moment when the human species was not already separated into groups of peoples. [*Hebrew literature, in common with all others, is thus rejected, being equally unhistorical as the rest.*] Whether this state of things has existed from the origin [*say, beginning*], or whether it was produced later, is what cannot be decided through history. Some **isolated legends** being re-encountered upon very diverse points of the globe, without apparent communication, stand in contradiction to the first **hypothesis**, and make the entire human genus descend from a single pair [*as, for*

[13] *Cosmos*, Fr. ed., "Avertissement du Traducteur," p. ii.

[14] Comparative experience of German authors and their translators teaches me to be particular. Compare, for instance, Chevr. Bunsen's *Ægyptens stelle in der Weltgechichte*, with what is called, in English, its *translation!* As is usual with political composition in these United States, one version of the same document is *printed for the North*, and another, very different, *for the South;* so, in like manner, that which suits the masculine stomachs of German men of science becomes diluted, until its real flavor is gone, before it is offered to the more sensitive palates of the British and Anglo-American "reading public."

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example, in the ancient book called "Genesis."] This tradition is so widely spread, that it has sometimes been regarded as an antique remembrance of men. But this circumstance itself would rather prove that there is not therein any real transmission of a fact, anysoever truly-historical foundation; and that it is simply the identity of human conception, which everywhere leads mankind to a similar explanation of an identical phenomenon. A great number of myths, without historical link [*say, connection*] between the ones and the others, owe in this manner their resemblance and their origin to the parity of the imaginations or of the reflections of the human mind. That which shows still more, in the tradition of which we are treating, the manifest character of **fiction** [*Old and New Testament narratives included, of course*] is, that it claims to explain a phenomenon **beyond all human experience,** that of the first origin of the human species, in a manner conformable to the experience of our own day; the manner, for instance, in which, at an epoch when the whole human genus **counted already thousands of years of existence,** a desert island, or a valley isolated amid mountains, may have been peopled. Vainly would thought dive into the meditation of this first origin: man is so closely bound to his species and to time, that one cannot conceive [*such a thing as*] an human being coming into the world without a family already existing, and without a **past** [*antecedent, i. e. to such man's advent*]. This question, therefore, not being resolvable either by a process of reasoning or through that of experience, must it be considered that the primitive state, such as a **pretended** [*alluding to the Biblical, necessarily*] **tradition** describes to us, is really historical—or else, that the human species, from its commencement, covered the earth in the form of **peoples?**[15] This is that which the **science of languages cannot decide** [*as theologers suppose!*] **by itself,** as [*in like manner*] it ought not either to seek for a solution elsewhere,[16] in order to draw thence elucidations of those problems which occupy it."

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[15] "Peuplades" corresponds, therefore, at the Humboldts' united point of view, with PROF. AGASSIZ's doctrine (*Christian Examiner*, Boston, July, 1850) that—Men must have originated in "*nations:*" adopted and enlarged upon by Dr. Nott and myself in "Types of Mankind," pp. 73–9. Two years of subsequent and exclusive devotion to this study, in France, England, and this country, have satisfied my own mind upon its absolute truth.

[16] Something of the same nature, viz., that comparative *philology* should confine its investigations within its legitimate sphere, has been set forth as a precept, if violated in practice, in that extraordinary chapter, entitled "Ethnology *v.* Phonology," contributed by Prof. Max-Müller to Chevr. Bunsen's still more extraordinary and most ponderous work (*Christianity and Mankind: their beginnings and prospects;* in 7 volumes! See vol. iii., "Outlines of the Philosophy of Universal History, applied to Language and Religion, pp. 352, 486, &c.) There was really no need that the erudite Chevalier should warn his readers (p. 21) that "Comte's Positivism has no place in the philosophy of history," understood *à la*

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We can now appreciate the philosophic tone in which the Humboldts use such terms as *myths*, *fiction*, and *pretended tradition*, in reference to every account purporting to give us the origin of mankind—Semitic narrations inclusive. On the real authority of the latter, they doubtless held the same views as their great country man, IDELER:

"Traditiones semiticæ, quæ in libris Veteris Testamenti depositæ sunt et conservatæ, haud quaquam sufficiunt, quippe quia recentioris sunt originis, omni fabularum genere refertæ et nimis arcto terrarum tractu circumscriptæ, prætereaque tam indoles Hebræorum nationi propria quam diversorum, qui singulos libros composuerunt, auctorum manifestum consilium doctrinam theocratiæ a sacerdotum corpore quasi repræsentatæ condendi effecerunt, ut veræ historiæ principia multis in locis aperte negligerentur."[17]

In common with their equally-renowned German contemporary, LEPSIUS, each, in his inquiries into the origin of humanity, "leaves aside the theological point of view, which has nothing to do with science."[18] "The paradisiacal myth," observes Prof. TUCH,[19] "has been generally more profoundly understood by philosophers than by theologians. Kant[20] and Schiller[21] have employed the Scripture document in elucidating physiological inquiries on the progressive development of mankind: both of these philosophers correctly remark, that the myth does not represent a debasement or sinking down from original perfection to imperfection—not a victory of sensuality over reason; but, on the contrary, it manifests the ad-

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BUNSEN: nor could one have credited *à priori* that his learned contributor is the same person who wrote that excellent work, "The Languages of the Seat of War" (London, 2d ed., 1855.) I am not singular either in this opinion. A philologist of far severer and profounder training than the above-named scholars, M. ERNEST RENAN, of the Bibliothèque Impériale, has already remarked: "As for the ideas recently put forth by M. Max-Müller (dans les *Outlines* de M. Bunsen, t. I, p. 263 et suiv. 473 et suiv.) upon the division of tongues into three families, Semitic, Arian, Touranian—this last containing everything which is neither Arian nor Semitic!—and about the original unity of these three families, it is difficult to see in them anything else than an act of complaisance towards views that are not his own; and one likes to believe that the learned editor of the Rig-Veda would regret that a work so little worthy of him should be too seriously discussed" (*Histoire et Système comparé des Langues Sémitiques*, "Ouvrage couronné par l'Institut," 1re partie, Paris, 1855, p. 466).

[17] HERMAPION, *sive Rudimenta Hieroglyphicæ Veterum Ægyptiorum Literaturæ.* Pars prior, Lipsiæ, 4to, 1841; p. 3 of Introduction.

[18] *Types of Mankind*, p. 233.

[19] *Kommentar über die Genesis*, p. 61: cited in "Introduction to the Book of Genesis, &c." from the German of DR. PETER VON BOHLEN; edited by JAMES HEYWOOD, M. P., F. R. S.: London, 1855; II, p. 78.

[20] "*Muthmasslicher Anfang des Menschengeschlects* (Probable Beginning of the Human Race): Berliner Monatschrift, 1786, St. I."—*Ibid.*

[21] "*Etwas über die erste Menschengesellschaft* (On the First Human Society): Sämmtliche Werke, 1825, Band 16—*Heywood's Von Bohlen.*"

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vancement of man from a state of comparative rudeness to freedom and civilization. The *historical individuality* of Adam is no longer maintained; he becomes the general representative of humanity."

"It is strange," continues DOHM, "that such pains have been taken to trace to the Jews not only the origin of all the ideas of science and religion which are found among eastern nations, but even the commencement of every possible variety of usage, custom, and ceremony. The small and circumscribed people of the Hebrews, who were generally despised, and who never maintained any intercourse with other nations, by trade or by conquest, by religious missionaries or by philosophical travellers, are supposed, according to the dreams of certain learned men, to have supplied all Asia, and from thence the whole world, with religion, philosophy, and laws, and even with manners and morals"—not to mention *Ethnography!*

But, in Lutheran Germany, where thorough Hebraical scholarship has liberated the public mind from the thraldom of ignorant priestcraft, these reasonings are familiar to every reader of a "*Kosmos* for the People:"[22]

"Nothing remains but to embrace the opinion, that the distinct characteristics of the human race were imprinted at all times; or that, in general, mankind does not descend from one man and one woman, from Adam and Eve, but from several human pairs; and to answer this question was already our purpose in the present chapter. But many of my readers will now say, that God, in the Bible, has created only one human pair. Perfectly correct. I reply to this only, that God did not write the Bible, but that Moses may have written the Pentateuch; and that whether he actually did write (these five books), scholars do not know themselves. But we know, quite certainly, that plants and animals were created at the same time, and not in several days of creation. We know, very positively, that, without the sun, no day or night interchanges; and that the sun was not created on the fourth, but on the first day. As certainly do we know, that neither plants nor animals could have lived previously to that creation of the sun; that the beasts, the worms, and the reptiles, were not created later than the birds; and that Adam and Eve were not alone the first human beings upon earth."

"The Semitic race," holds the latest and ablest historian of their language, RENAN,[23] "is recognized almost uniquely through its negative characteristics: it has neither mythology [of its own] nor epopee, neither science nor philosophy, neither fiction nor plastic arts, nor

[22] GIEBEL, *Geschichte des Weltalls der Erde und ihrer Bewohner; Ein Kosmos fürs Volke;* Leipzig, 1851.

[23] *Histoire des Langues Sémitiques* (supra, note 16), p. 16, 25–6.

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civil life." "The Semitic tongues appear to us, from ante-historical times, *cantonned* in the same regions where we see them spoken even at this day, and whence they have never issued, except through Phœnician colonies and the Mussulman invasion: I mean in that peninsular space shut in at the north by the mountains of Armenia, and at the east by the mountains which bound the basin of the Tigris. No family of tongues has travelled less, nor radiated less exteriorly: one would search in vain, beyond the southwest of Asia, for a well-marked trace of an ante-historical sojourn of the Shemites. The antique memorials of geography and of history, contained in the first pages of Genesis—pages that we have a right to regard as the common archives of the Shemitic race—can only furnish us with some conjectures about the migrations that preceded the entry of the Shemites into the region in which one would feel tempted, at first glance, to believe them to be autochthones.

"The Shemites, in fact, are, without contradiction, the race which has preserved the most distinct recollection of its origins. Nobility among them consisting uniquely in descent by straight line from the patriarch or chief of the tribe, nowhere are genealogies so much prized,—nowhere are possessed of these any so long and so authentic. Genealogy is the essential form of all primitive histories among the Shemites (תולדות). The *Toledoth* of the Hebrews, notwithstanding their gaps, their contradictions, and the different re-handlings which they have suffered, are certainly those historical documents that cause us to approach nearest to the origin of humanity. Whence the remarkable fact, that other races, having lost their own primitive remembrances (*souvenirs*), have discovered nothing better to do than to hitch themselves on to Semitic recollections: so that the origins recounted in Genesis have become, in general opinion, the origins of mankind [at large!].

"These particular recollections of the Semitic race, which about the first eleven chapters of Genesis inclose, divide themselves into two very distinct parts. During the antediluvian phase, it is a fabulous geography, to which it is very difficult to attach a positive meaning: they are fictive genealogies, of which the degrees are filled, either by the names of ancient heroes, and perhaps by some divinities that are to be found among the other Semitic populations; or by words expressive of ideas, and of which the signification was no longer perceived. They are fragments of confused recollections, wherein dreams are mixed up with realities, very nearly as in the remembrances of early infancy. [It is impossible to display more penetration than M. Ewald has towards interpreting these antique pages. (*Geschichte des Volkes Israel;* I, p. 309 *et suiv.*) I must say,

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however, that, in my opinion, M. Ewald yields a great deal too much to the temptation of comparing the Hebræo-Semitic *origines* with Indo-Arian cosmogonies.]"

Certainly the most philosophic of Semitic historians, the sage EBN KHALDÙN,[24] has remarked, on national characteristics: "It is a curious circumstance, that the majority of the learned among the Muslims belonged to a *foreign race:*—very few persons of Arabian descent having obtained distinction in the sciences connected with the Law, or in those based upon human reason; and yet the promulgator of the Law was an Arab, and the Kur'àn, that source of so many sciences, an *Arabic* book."

But perhaps the best-qualified living historiographer of Palestine, no less than the one most versed in the literature of his co-religionists, M. Munk, declares, in respect to the first chapter of Genesis: "This cosmogony is of an infantile simplicity. One must not see in it anything but a poem,—containing, indeed, some germs of science, but wherein imagination outbalances reflection; and which it would be erroneous to judge from a scientific point of view."[25]

Finally, the most rigorous amongst archæologists whom this generation has admired, viz., LETRONNE, registered his sentiments on popular misconceptions of Hebrew literature, in the subjoined language:

"There was a time, and this time is not yet very far from ourselves, in which all the sciences were compelled to find their origin in the Bible. It was the unique basis upon which they were permitted to rise; and narrow limits had been fixed to their expansion. The astronomer, indeed, was allowed to observe the stars and to make almanacs; but under the condition that the earth should remain at the centre of the universe, and that the sky should continue to be a solid vault, interspersed with luminous points: the cosmographer might draw up charts; but he was obliged to lay down the principle that the earth was a plane surface, miraculously suspended in space, and held up by the will of God. If some theologers, less ignorant (than the majority), permitted the earth to assume a round form, it was under express stipulation that there should be no antipodes. The natural history of animals was bound to speak of the reproduction of those which had been saved in the Ark: history and *ethnography*

[24] *Prolegomena;* cited by MACGUCKIN DE SLANE in the Introd. of his translation of EBN KHALLIKÀN'S *Kitàb Wafeeàt el-Aâyeàn* (Biographical Dictionary)—Oriental Translation Fund, London, 1843; II, p. i.

[25] *Palestine,* Univ. Pittor., Paris, 1845; p. 426:—compare *Types of Mankind,* pp. 561–6; and also POTT (*Moses und David keine Geologen,* Berlin, 1799, pp. 35–47), who proved, 1st, that Genesis I contains no revelation; 2d, still less a revelation of geological facts; 3d, in no manner a revelation made to Adam or to Moses.

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had for common basis the dispersion, over the surface of the earth, of the family of Noah.

"The sciences had, therefore, their point of departure fixed and determinate; and around each of them was traced a circle, out of which it was forbidden to them to issue, under pain of falling instantly beneath the dread censure of theologers,—who always possessed, at the service of their notions, whether good or bad, three irresistible arguments, viz., persecution, imprisonment, or the stake."[26]

Thus, then, the doctrine above advocated by the Humboldts is supported, at the present hour, by the most brilliant scholarship of the European continent—as might easily be proved through quotations from a hundred recent works. Into parliamentary-stifled England, even, the light is beginning to penetrate. For instance, the erudition of MR. SAMUEL SHARPE none will contest. To his Hellenic learning we owe the most critically-accurate translation of the New Testament[27] our language possesses: to him, also, Egyptology, among other great services, is indebted for the best "History of Egypt"[28] derived from classical sources. His remarks "*on the Book of Genesis*"[29] bear directly on the subject before us: "We have no account of when this first of the Hebrew books was written, nor by whom. It has been called one of the books of Moses; and some small part of it may have been written by that great lawgiver and leader of the Israelites. But it is the work of various authors and various ages. The larger part, in its present form, seems to have been written when the people dwelt in Canaan and were ruled over by judges, when Ephraim and Manasseh were chief among the tribes. But the author may have had older writings to guide him in his history. It is evident, also, in numerous places, that other writers, far more modern, have not scrupled to make their own additions. We must divide it into several portions, and each portion will best explain itself."

Still more recently, an English biblical scholar, of no mean pretensions—whose gentlemanly temper and pleasant style inspire regrets that one so truthful should be compelled, owing to the dreary atmosphere of national prejudices which surrounds him, to

[26] "On the cosmographical Opinions of the Fathers of the Church, compared with the philosophical Doctrines of Greece"—*Revue des Deux Mondes* (3me série), Paris, 1834; I, p. 602.

[27] *The New Testament translated from Griesbach's Text.* London, 12mo, Moxon, 3d ed., 1856.

[28] London, 8vo, Moxon, 1846.

[29] SHARPE, *Historic Notes on the Books of the Old and New Testaments;* London, 12mo., Moxon, 1854; p. 6.

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fight, in the cause of *plurality of human origins* and of *diversity of races*, with his visor down—has put forth a volume[30] that augurs well for ethnological progress in Great Britain. The method of argument, and the majority of facts advanced, will be new, however, only to the mere reader of English,—two hundred years having elapsed since PEYRERIUS[31] started a controversy which, on the continent, has been prolific enough, down to Fabre d'Olivet and his pupil Raffinesque,[32] and still later to Klee.[33] More recently still, we find an apposite passage in Dr. August Zeune:[34] "It is known that, after the uprooting of the several Antilles by the Spaniards, Spanish ghostly divines palliated the introduction of negro slaves, for the purpose of working the mines, by the assumption that negroes, as the descendants of Ham (that is to say, the *black*), who was accursed[35] by his father Noah; because Ham is named in a holy record as 'slave of all slaves among his brethren.' * * * A well-known naturalist, now deceased, held the wondrous opinion that Ham, after his father had cursed him, became *black from grief;* and was the (*stammvater*) lineal progenitor of the negroes. Which of the three sons of Noah became Kalmucks? Genesis indicates three (*Menschenschöpfungen*) races, at a much earlier day, in the children of Adam, of the Elohìm, and of the Nephilìm, &c.; so that Adam appears merely as the *stem-father* of the Iranian race, because Paradise also points to Armenia [quoting SCHILLER, *über die erste Menschengesellschaft nach der Mosaïchen Urkunde*]. * * * Inasmuch as, however, according to the assertion of an admired dramatist, it has not yet occurred to anybody to sustain that all figs have sprung from a solitary primitive fig, even as little can any one admit the whole of mankind to be derived (*abstammen*) lineally from a single human pair. Wherever the conditions for life were found, there life has sprung forth." * * *

Did the limited size of the present work permit (its previous space being engrossed by contributions of higher order than polemical discussions upon the scientific value, in anthropology, of a single nation's

[30] Anonymous—*The Genesis of the Earth and of Man:* "A critical examination of the Hebrew and Greek Scriptures, chiefly with a view to the solution of the question, whether the Varieties of the Human Species be of more than one origin," &c. Edited by REGINALD STUART POOLE, M. R. S. L., &c. Edinburgh, 12mo, Black, 1856.

[31] *Præ-Adamitæ, sive exercitatio super Versibus* XII^mo^, XIII^mo^, *et* XIV^to^, *capitis quinti Epistolæ D. Pauli ad Romanos*, 1655.

[32] *Langue Hébraïque restituée*, Paris, 4to, 1815; "Cosmogonie de Moyse," pp. 55–8, 177–83, 211–12:—and *American Nations.*

[33] *Le Déluge*, &c., Paris, 18mo, 1847; Chapter III, pp. 192–204.

[34] *Über Schädelbildung zur festern Begründung der Menschenrassen*, Berlin, 4to, 1846; pp. 2–4

[35] Similar anti-scriptural notions, so far as the Hebrew text is concerned, are entertained by DR. WARD, *Natural Hist. of Mankind* (Society for promoting Christian knowledge), London, 12mo, 1849, p. 195. Compare *Types of Mankind*, voce KNAAN, pp. 495–8.

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literature), I would endeavor, whilst striving to emulate our *anonymous* author's charity and good taste, to lay before his acumen proofs that, with motives most laudable and utility unquestionable, he has tried to reconcile two things which surpass reconciliation; and, therefore, that his praiseworthy labors will, unhappily, satisfy neither the exigencies of natural science, on the one hand, nor those of rigid Hebraism, of the modern school, on the other. Yet, as a specimen of his propositions, I cannot refrain from the extract of a passage or two.[36]

"The narrative with which the Bible commences, ending with the third verse of the second chapter, is distinguished from that which immediately follows it, as the latter narrative also is from the third, not merely by the name given therein to Deity, but in several other respects. Its most remarkable characteristic is this: that it altogether consists of a description of events which could not have been witnessed by any human being. [*This is precisely the view above taken by the* HUMBOLDTS.] Every one, therefore, who admits the truth of the Bible, whatever be his opinion of some other portions of it, must hold this narrative to be a *revelation.*

"Now, we find that revelations of this kind, of which the subjects are *events*, were generally conveyed in *representations to the sight;* and hence, by the safest and most legitimate mode of judging, by comparing Scripture with Scripture [*a sort of reasoning within a circle*], we are led to the conclusion, that the narrative under our consideration is *most probably the relation of a revelation by means of a vision*, or rather *a series of visions.*" * * * "The passages in the Bible which are commonly regarded as deciding the question respecting the unity of the origin of the human species, demand a reverential caution of this kind [i. e., 'until we have weighed all the circumstances of the case'—*antecedent paragraph*] in him who examines them: for while these apparently indicate the origination of all mankind from a single pair of ancestors, there are others which apparently imply the existence of human beings not the offspring of Adam." * * * "If we regard Adam as the first of all mankind, this general view of the origin and development of language (Chev^r. Bunsen's), supposing it to be admitted, obliges us to reduce a great part of the history of the book of Genesis to the category of faulty and vague traditions, as we have before observed." * * *

Now, with every deference, before exhibiting such contradictions to the eyes of the simple believer, and deducing therefrom several distinct lineages of the *first men*, would it not be the most prudent

[36] *Genesis of the Earth*, &c. (supra); pp. 1–2, 11–2, 19, 43–4, and 181–2.

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and natural step, on the part of archæologists, to ascertain previously the relative *age*, *writer*, and *peculiarities*, of each given document? I cannot find that our author has taken these precautions; but I read,—"the existence of pre-Adamites, without a revelation, is surely less wonderful than the fact that there have been, and still are, post-Adamites without it." * * * "These passages, though reconcilable with the general opinion respecting the origination of all mankind, seem rather to indicate the existence of nations not of the same race as the descendants of Adam, and not destroyed by the flood, and the partition of the lands of the former among certain colonies of the latter; and an argument in favor of this inference may be drawn from the fact that the appellation here rendered 'the nations' ('haggōyīm'), in other instances, which are very numerous, generally, and perhaps always, denotes the nations exclusive of the people of God, or of the Israelites; wherefore it is often rendered, in the authorized version, 'the Gentiles' and 'the heathen.' If so, we may suppose that the confusion of tongues was a consequence, not the cause, of the dispersion from Babel. The whole of the tenth chapter of Genesis seems to be *parenthetic*."

"Parenthetically," as applied to Xth Genesis, is an adverb which, so far as my limited reading of *English* biblical criticism extends, first occurs in a little work in some slight degree connected with my former studies.[36] It is gratifying to find its correctness now endorsed; and still more to perceive, that the admission of the *aboriginal plurality of Human Races*, sustained here in America by the Mortonian school, compels English scholars so to modify their interpretations of king James' version, as to make the *diversity*-doctrine harmonize with the Scriptures—or *vice versâ*. For my own part, I congratulate both author and editor on their ingenious and ingenuous method of smoothing a pathway for the eventual recognition, in England, of our common polygenistic views. Orthodox in treatment, if passably heretical in issues—*suaviter in modo, fortiter in re*—"The Genesis of the Earth and of Man" will percolate unobtrusively into the Scottish as well as the English mind; inevitably and speedily awakening echoes, of surpassing benefit to Ethnology, which books of heavier calibre could not hope to rouse up, amid such intellectual conditions, in a century! Its publishers, therefore, need not sigh with BYRON,

> "*For through a needle it easier for a camel is*
> *To pass, than this small cant-o into families.*"

[36] *Otia Ægyptiaca*, London, 8vo., Madden, 1849; p. 141:—reprinted from LUKE BURKE's *Ethnological Journal*, London, 1848–9; and enlarged upon in *Types of Mankind*, Philadelphia and London, 4to. and 8vo., 1854; pp. 466–556.

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My final corroboration of the Humboldts' doctrine has to be drawn from the antipodes. Strange! Whilst amid the civilizations of Europe and America no independent Ethnologic serial has hitherto been able to survive, far less to remunerate its editor, mankind's most "proper study" has found, for some ten years, asylum and patronage at Singapore![37]

The merit is due to the genius, acquirements, and enterprise of an individual. If each of the eight zoological realms over which Agassiz distributes the various groups of mankind could boast of possessing its Mr. LOGAN, English science would not have to deplore the continued absence of that true spirit of ethnological investigation, coupled with perfect knowledge of the instruments to be employed, in nearly all but the *Malayan*.

"Ethnology, in its etymological and narrowest sense,[38] is"—according to Logan's judgment—"the science of nations. It investigates the characteristics and history of the various tribes of man. The time seems to be already come when we may venture to define it more comprehensively as the science of the Human Race. From the investigation of the peculiarities and histories of particular tribes it rises to the conception of mankind as one race, and combining the truth which it gathers from every tribe, presents the whole as the science of the ethnic development of man. Those who may consider it premature to unite all nations in the idea of one race, can still accept the definition as indicating the science that results from a comparison of nations and their developments. Whether all men are descended from one stock or not, may be placed apart as an enquiry by itself, for those who think it worth while to pursue it in the present state of our knowledge. All are agreed that man is of one kind. If the millions who now people the earth had some hundreds of progenitors instead of a single pair, the science which the definition comprises will remain unaffected." * * * *

"I may state here, once for all, that ethnology can only be pursued as a scientific study by viewing the Hebraic religious development, and the Hebrew records, in their human aspect; that is, as entering into the ethnic development of the Aramæan race and of the world. The supernatural element, and all the discussions respecting the limits of inspiration and the methods of interpretation, belong to theological science, and amongst all the discordant systems of the-

[37] *The Journal of the Indian Archipelago and Eastern Asia*, 1847–56; edited by J. R. LOGAN, Singapore.

[38] *Journ. of the East. Indian Archip.*, vol. iv., 1850; "The *Ethnology of the Indian Archipelago;* embracing inquiries into the continental relations of the Indo-Pacific Islanders;" pp. 262, 263 *note:* and vol. vi., 1852; p. 678–9.

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ology, that can only be true which is in harmony with the truths established by the observation of God's works." * * * * * *

"There is a deep-rooted source of error in Bunsen's ethnic speculations,[39] as in those of many other German philosophers, the Schlegels amongst them. It is assumed that the ethnology of the ancient Hebrews, as preserved in their sacred books, is a full reflection of that of the world. I have, in another place, protested against this resumption, in ethnology, of the system that has impeded the progress of every branch of knowledge in succession, from Astronomy to Geology, that of endeavoring to bind down the human mind to the science of the ancient Hebrews. There has been no divine revelation of Ethnology any more than of Geology, Zoology, or any other purely-mundane science.

"We might as justly refuse to recognize the existence of plants, animals, and planets, that are not mentioned in the Bible, as base our Ethnology on that of a people who were perhaps the least ethnologic of all great civilized nations that have existed. It is obvious that any ethnic science that does not embrace every tribe and language in the world must be needlessly imperfect, and that an exclusion of large sections of the human race must render it grossly so. Now it is certain that the Hebrews were ignorant of

[39] Alluding probably to the Chevalier's paper, "On the results of recent Egyptian researches," &c.—*Three linguistic Dissertations;* Report of the British Assoc. for the Adv. of Science for 1847; London, 8vo., 1848:—because the *Outlines of the Philosophy of Universal History* (supra, note 16), 1854, could not have arrived at Singapore four years previously. And, while on this subject, let me repudiate the preposterously-misnamed *Turanian* theory, as applied to the Aborigines of America! Conceding, to the learned Egyptologist and classical scholar, the highest admiration for his acquirements in such arduous studies, it would have been prudent in him, perhaps, by withholding an endorsement of SCHOOLCRAFT'S *History of the Indian Tribes* of North America (already five volumes, elephant quarto!), not to have exposed himself to the charge of discussing themes upon which he possesses little or no knowledge himself, and his authority, save in the capacity of recorder of the habits of such living tribes as official peregrinations afforded, but a trifle more. Chev. Bunsen labors under singular delusion, if he considers that this "great national work" (*Outlines*, II, pp. 111–13), carries any weight among men of science in this country. Americans feel proud, that their Legislature should have generously voted "$80,856.50" (cost of the first three volumes alone! see the *North American Review*, Boston, 1853, Art. XI, on Parts I, II, and III, p. 246), towards the promotion of knowledge; Philadelphia may justly boast of the beautiful typography, splendid paper, and superb mechanical execution, of the work; and it likewise contains several contributions of a high order from distinguished men: but I will frankly state, from personal acquaintance with scientific sentiment, during fifteen years that I have visited the best-educated States in the Union, that, in the opinion of those qualified to judge, a *twenty-five-cent* pamphlet could easily condense all the knowledge paraded, in these five big volumes, by its industrious author. With this respectful hint to Chev. Bunsen and Prof. Max-Müller, I postpone specifications to a more suitable occasion; because, at present, with regard to this and other Washingtonian literary institutions, *Nunquam concessa moveri Camarina* (Virgil, *Æn.*, III, 701).

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the very existence, not only of the extensive outlying provinces of America and Asianesia, but of the great mass of the tribes of the old world. They do not appear to have cultivated a knowledge of any non-Semitic language, and consequently their ethnic notions respecting some adjacent non-Semitic tribes must have been very obscure and erroneous. It may be doubted whether their knowledge of the Africans extended beyond the Egyptians, and their southern Nilotic neighbors, the Ethiopians. The European nations were unknown to them, save through some vague impressions respecting the sea-board tribes of the S. and W. coasts, received from the reticinent Phœnicians. Their knowledge of the numerous nations of northern, middle, and eastern Asia, was partial and obscure. They do not appear to have had a suspicion of the existence of the great civilized peoples of the East, the Arians and the Chinese, and they were as profoundly ignorant of the Dravirians, as they were of the Germans and the ancient British.[40] Nothing can more conclusively show the extremely narrow and isolated character of their ethnology, and their rigid seclusion from time immemorial in the Semitic civilization, than the fact that they had entirely lost, and had been unable by their observations to recover, the idea of barbarism. In this respect, their ethnology is far below that, not only of Herodotus and Manu, but of other Semitic nations; such as the Arabs, the Phœnicians, and, in all probability, the Babylonians, at least in their more civilized and commercial era. It is therefore surprising to see a writer like Bunsen founding his ethnology on that of Moses, which can only be correct as a partial picture of the races of S. E. Asia, and N. E. Africa, as known to the Hebrews."

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[40] *Types of Mankind*, Part II, pp. 466–556; with its "Genealogical Tableau" of Xth Genesis, its "Map of the World as known to" the genesiacal writer; thoroughly confirmed the deductions here drawn by Mr. Logan: and every fresh archæologist who examines this hoary document arrives at the same conclusions. I would now refer to researches unseen by me, or unpublished, when I projected my MSS. for the above work, at Mobile, in 1852. 1st, RENAN, *Hist. des Langues Sémitiques* (supra), 1855, pp. 27–74, and 449–63: — 2d, BERGMANN, *Les peuples primitives de la race de Jafète. Esquisse ethno-généalogique et historique.* Colmar, 8vo., 1853, p. 64: — 3d, RAWLINSON, *Notes on the Early History of Babylonia;* London, 8vo., 1854, pp. 1–2, *note*:—4th, HEYWOOD'S VON BOHLEN, (supra, note 19), *Introd. to the Book of Genesis*, London, 1855; II, pp. 210–54: — and 5th, as the most important, because devoted exclusively to analysis of this subject; AUGUST KNOBEL, *Die Volkertafel der Genesis. Ethnographische Untersuchungen;* Giessen, 8vo., 1850. I was not aware of this masterly book, until many months after the publication of my own studies in "Types of Mankind." It was subsequently indicated to me at Paris, by my valued friend M. Renan. With no small gratification, I afterwards discovered that Dr. Knobel's results and my own were always similar, often identical. Compare pp. 9, 13, 137–7, 167, 170, 339–52, for particular instances, with the same points discussed in "Types."

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Such are some of the true principles for embracing, in these inquiries, Hebrew ethnography, as an inestimable, but, in reality, a very minor part of the World's ethnology: at the same time that, through the above extracts, we perceive but a small portion of the uncertainties and perils, that beset this new and ill-appreciated study. — "And yet," indignantly, but most righteously exclaims LUKE BURKE, "And yet this is the science on which every man is competent to pass an opinion with oracular emphasis; the science to which missionaries dictate laws, and which pious believers find written out, ready to their hands, in the book of Genesis. The science, in a word, which a whole tribe of comparative philologists, with a fatuity almost inconceivable, have coolly withdrawn from the control of zoology, and settled to their own infinite satisfaction, *as per catalogue* of barbarian vocabularies.[41] The really learned are perplexed with doubt, or appalled with difficulty: the true naturalist approaches with diffidence, or states his opinion without dogmatism or tenacity; but the theologian is perfectly at home, and has arranged every thing long ago. The land is his by right Divine, his own peculiar appanage; and with the authority of a master he peremptorily decides, that a science, to which even the distant future will scarcely be able to do proper justice, shall receive its laws and inspirations from the remote and ridiculous past."[42]

Having thus fortified what I deem to be the "ultima ratio," above put forth on Human Origins, by the brothers Humboldt conjointly, it may be interesting to dissect some sentences of that magnificent paragraph; in order that we may not unwittingly ascribe to WILHELM, the philologist, the more decided opinions of his brother ALEXANDER, whose universality of science precludes special classification.

And first, it seems ominous to the Unity-doctrine, that the most brilliant philologer of his day should have left a manuscript, "On the *Diversity* of Languages and of Nations."

This manuscript, however, being unpublished, no positive deduction can be drawn from its mere title; but the treatise must possess some elements distinguishing it from the elder work, long honored by the scientific world: "Über die Verschiedenheit der menschlichen Sprachbaues;" *On the Diversity of Structure of Human Languages*,— contained in Wilhelm von Humboldt's researches into the "*Kawi-*

[41] This applies especially to an inexhaustible, learned, and laborious ethnological "catalogue-maker," Dr. Latham. Vide the *Brighton Examiner*, October 2, 1855 — for a critique by Mr. Luke Burke, of "Dr. Latham's Lecture on 'Ethnology.'"

[42] *Charleston Medical Journal and Review*, Charleston, S. C., vol. XI, No. 4, July 1856— "Strictures," &c., by Luke Burke, Esq., Editor of the London Ethnologica. Journal— pp. 457–8.

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tongue, in the island of Java;"[43] elsewhere cited in *Cosmos*. One of these passages is noteworthy, not only for the law it enunciates, but also for the variety of rendering it has received:

GERMAN ORIGINAL.[44]—"Die Sprache umschlingt mehr, als sonst etwas im Menschen, das ganze Geschlecht. Gerade in ihrer völkertrennenden Eigenschaft vereinigt sie durch das Wechselverständnisz fremdartiger Rede die Verschiedenheit der Individualitäten, ohne ihrer Eigenthümlichkeit Eintrag zu rhun. (A. a O. S. 427.)"

SABINE'S TRANSLATION.[45]—"Language, more than any other faculty, binds mankind together. Diversities of idiom produce, indeed, to a certain extent, separation between nations; but the necessity of mutual understanding occasions the acquirement of foreign languages, and reunites men without destroying national peculiarity."

OTTÉ'S TRANSLATION.[46]—"Language, more than any other attribute of mankind, binds together the whole human race. By its idiomatic properties, it certainly seems to separate nations; but the reciprocal understanding of foreign languages connects men together, on the other hand, without injuring individual national characteristics."

GUIGNIAUT'S TRANSLATION.[47]—"Le langage, plus qu'aucune autre faculté de l'homme, forme un faisceau de l'espèce humaine tout entière. Il semble, au premier abord, séparer les peuples comme les idiomes; mais c'est justement la necessité de s'entendre réciproquement dans une langue étrangère qui rapproche les individualités, en laissant à chacune son originalité propre."

That the organs of speech enable mankind to interchange their thoughts, is one of those truisms to question which would be absurd. Speech is an inherent attribute of the "genus homo;" just as *mewing* is to the feline, and *barking* to the canine: but it does not follow that, because a Lapp might by some chance acquire *Guarani*, a Tasmanian *English*, an Arab *Korean*, a Mandingo *Madjar*, an Esquimau *Tamul*, or, what is more possible, that a thorough-bred Israelitish emigrant from ancient Chaldea (his own national tongue being forgotten) might now be found speaking any one of these tongues as his own vernacular,—it does not follow, I repeat, either that humanity is indivisible into groups of men linguistically, as well as physically and geographically, distinct in origin; or that Wilhelm von Humboldt thought so: any more than because "*felis catus Angorensis*" of Turkish Angora "mews" like "*felis brevicaudata*" of Japanese Nippon, and both these animals like "*felis domestica cærulia*" of Siberian Tobolsk,[48] that these three cats are necessarily

[43] *Ueber die Kawi-Sprache auf der Insel Java*, Berlin, 4to, 1836. Cardinal WISEMAN frequently quotes it eulogistically in his *Connection between Science and revealed Religion.*

[44] *Op. cit.* (*supra*, p. 407), p. 493.

[45] *Supra* (note 10)—*Cosmos*, I, p. cxv, note 443.

[46] *Supra* (note 6)—*Cosmos*, I, p. 359, note.

[47] *Supra* (note 1)—*Cosmos*, I, pp. 579–80, note 43.

[48] Not being myself a zoologist, it may be well to shield assertions, on this *cat*-question, with the authority of one who is. PROF. S. S. HALDEMAN remarks: "Thus, the cat mummies of Egypt were said to be identical with the modern Felis domestica; and such was the general opinion, until the discovery, of Dr. Rüppell, of the genuine analogue of the embalmed species, in the Felis maniculata of Noubia. I believe Professor Bell to be

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of the same blood lineage, identical species, or proximate geographical origin: notwithstanding that, amongst other "philosophical aphorisms," Bunsen—with whom philology and ethnology are synonymes through which we shall recover, some day, the *one primeval language* spoken by the first pair, who are now accounted to be "beatorum in cœlis"—declares, "that physiological inquiry [one, as we all know, completely outside of the range of his high education and various studies], although it can never arrive by itself at any conclusive result, still decidedly inclines, on the whole, towards the theory of the unity of the human race."![49] I have no hopes, in view of his early education and present time of life, that the accomplished Chevalier will ever modify such orthodox opinion; but readers of the present volume may perhaps discover some reasons for differing from it.

But, even under the supposition that Wilhelm von Humboldt, in his now-past generation, when writing "on the *Diversity* of Languages and Peoples," may have speculated upon the possibility of reducing both into one original stock, it will remain equally certain, that, in such assumed conclusion, he was biassed by no dogmatical respect for MYTHS, FICTION, or PRETENDED TRADITION (*ubi supra*); and furthermore that, if he grounded his results on the "*Kawi* Sprache," he inadvertently built upon a quicksand; as subsequent researches have established.

Amongst scientific travellers and enlightened Orientalists of England, the venerable author of the "History of the Indian Archipelago" has long stood in the foremost rank. His speciality of investigation occupied—"a period of more than forty years, twelve of which were passed in countries of which the Malay is the vernacular or the popular language, and ten in the compilation of materials;"—of which a recent[50] "Dissertation" embodies not merely the precious ethnographical issue; but, through his method of analysis and depth of logic, superadded to vast practical knowledge of his theme —combined with sterling common sense, its author has produced what, in my individual opinion, must become the model text-book,

correct in deciding that Felis domestica can neither be referred to this species, nor to the Felis catus found wild in the forests of Europe." (*Recent Freshwater Mollusca, which are common to North America and Europe*, Boston Jour. of Nat. Hist., Jan. 1844, pp. 6–7.)

[49] *Outlines* (supra, p. 102), I, p. 46. "Multæ terricolis linguæ, cœlestibus una," is another way of stating such axiom. How did this last writer know that people do talk *one* language in heaven? Can he show us whether the "dead" have speech at all? During some generations, the Sorbonne, at Paris, discussed, in schoolboys' themes, a coherent enigma, viz., *An sancti resurgant cum intestinis*—not a less difficult problem for such youths' pedagogues!

[50] *A Grammar and Dictionary of the Malay Language, with a preliminary Dissertation*; 2 vols. 8vo., London, 1852. Our citations are from I. pp. 35–6, 128–9.

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to sincere students of comparative philology. Here science feels itself relieved from verbal transcendentalism, so sublime that it is meaningless, in which the hybrid school of Anglo-German ethnologists delights: and this volume, at any rate, does not "teach grammar as if there were no language, geography as if there were no earth." Mr. Crawfurd,—unlike some of his English contemporaries who, grouping into little catalogues all the tongues known or unknown upon earth, of which it is materially impossible that any one man's brain, or lifetime, could gather even the rudiments, proclaim that "*philology* proves the unity" of human origins—Mr. Crawfurd thoroughly understands his subject, and writes so that even ourselves can understand him.

"There exists in Java, as in Northern and Southern India, in Ceylon, in Birma, and Siam, an ancient recondite language, but it is not, as in those countries, any longer the language of law and religion, but a mere dead tongue. This language goes under the name of Kawi, a word which means 'narrative,' or 'tale,' *and is not the specific name of any national tongue.* Most probably it is a corruption of the Sanscrit kavya, 'a narration.' In Java there are found many inscriptions, both on brass and stone, the great majority of which, on examination, are found to consist of various ancient modifications of the present written character." * * * * * * * "Some writers have supposed the Kawi to be a foreign tongue, introduced into Java at some unknown epoch, but there is no ground for this notion, as its general accordance with the ordinary language plainly shows. Independent of its being the language of inscriptions, it is, also, that of the most remarkable literary productions of the Javanese, among which, the most celebrated is the Bratayuda, or 'war of the descendants of Barat,' a kind of abstract of the Hindu Mahabarat." * * * (probable date, about A. D. 1195). In it, "near 80 parts in 100, or four-fifths of the Kawi, are modern Javanese." * * * * * "When, therefore, it is considered that the Kawi is no longer the language of law or religion, but merely a dead language, it is not difficult to understand how it comes to be so little understood; while, in deciphering inscriptions, the difficulty is enhanced by an obsolete character." * * * * "Kawi is only an antiquated Javanese."

"The illustrious philosopher, linguist, and statesman, the late Baron William Humboldt, has, in his large work on the Kawi of Java, expressed the opinion that the Tagala of the Philippines is the most perfect living specimen of that Malayan tongue, which, with other writers, he fancies to have been the parental stock from which all the other tongues of the brown race in the Eastern Archipelago, the Philippines, the islands of the Pacific, and even the language of Ma-

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dagascar, have sprung. I cannot help thinking that this hypothesis, maintained with much ingenuity, must have *originated in this eminent scholar's practical unacquaintance with any one language of the many which came under his consideration;* and that, had he possessed the necessary knowledge, the mere running over the pages of any Philippine dictionary would have satisfied him of the error of his theory. I conclude, then, by expressing my conviction that, as far as the evidence yielded by a comparison of the Tagala, Bisaya, and Pampanga languages with the Malay and Javanese goes, there is no more ground for believing that the Philippine and Malayan languages have a common origin, than for concluding that Spanish and Portuguese are Semitic languages, because they contain a few hundred words of Arabic, or that the Welsh and Irish are of Latin origin, because they contain a good many words of Latin; or that Italian is of Gothic origin, because it contains a far greater number of words of Teutonic origin than any Philippine language does of Malay and Javanese."[51]

How Crawfurd disposes of the Malayan tongues, segregating this group victoriously from all others, has been previously indicated in M. Maury's chapter, [*ante.* pp. 79–80]. Our purpose is answered by publishing, in the said chapter, proofs that linguistic science has progressed considerably since 1836, when the disquisition on the "*Kawi*-sprache" was written; and that, while to Wilhelm von Humboldt is gratefully accorded the highest position in philology as it stood 20 years ago, it is injustice to the memory of a great man to quote his authority as tantamount to a *finality*, when he himself (were he now alive) would have kept pace with the latest discoveries in science, as when, — to his honor be it recognized — he was the *first* qualified critic, out of France, to welcome and promote Champollion-le-Jeune's hieroglyphical decipherings;[52] unappalled himself, if others were not, at the storm which ignorance and superstition everywhere had raised against the immortal Frenchman.

It is to the surviving brother that Ideler dedicates his work — "Alexandro ab Humboldt, Germanorum quotquot fuere, sunt, eruntque decori sacrum." In his own person, the nonogenerian patriarch

[51] See also *The Westminster Review*, No. xviii, April, 1856; London ed., Art. iii. on "Types of Mankind;" pp. 373–5. In thanking the reviewer for the fairness of his critique upon our work, let me point out two oversights contained in his obliging article: 1st.—(p. 364) Prof. Agassiz never created a "Hottentot" *realm;* but merely included a Hottentot *Fauna* in his "African" realm (see *Types*, p. lxxvii.): 2d.—(p. 367) by referring, as I have done, to Morton's *Illustrated System of Human Anatomy* (p. 151), he will find that the Doctor wrote "a climate as cold as Ireland," not *Iceland:* so that there remains no "double mistake," except the pair above committed by the reviewer.

[52] Ideler, *Hermapion* (supra, note 17); chap. XXXI, "Lettre de M. le Baron Guillaume de Humboldt à M. Champollion."

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of science seems likely to realize Flouren's proposed law,[53] viz: that the true length of human life should not fall below *one hundred years:* and certainly there lives no man to whom mankind owe a more fervent tribute of good wishes. Others are better qualified than the present writer to show how ceaselessly Baron Alexander de Humboldt steps onward, day by day, as leader in multitudinous fields of Natural Science; but should *Egyptology* be taken as the criterion of his ever-progressing knowledge, then we need, in order to plant some pickets along the route, but to re-open his *Cosmos*,[54] and to peruse some of Lepsius's[55] and Brugsch's writings.[56]

Nevertheless, supposing that we take a step backwards of some 47 years from this day, when Baron de Humboldt stood already at the meridian of his glorious life, and open the beautiful *Introduction* with which, in 1810, he prefaced the "Vues des Cordillèras,[57] we perceive how, at that day—one generation and a half ago,—he felt overjoyed at having then lived to witness the appearance of the great French work, the "Description de l'Égypte," fruit of Napoleon Bonaparte's eastern campaigns of 1778–1800,—which grand folios, except for architectural designs of ancient, and excellent views and disquisitions of modern Egypt, have, since Champollion's era, 1822–32, become, archæologically speaking, almost so much waste paper. Yet, at that time (to most men under fifty, in this our XIXth century, *remote* day), Alexander von Humboldt had already arrived at the following philosophical conclusions about the "unity of the human species."

"Le problème de la première population de l'Amérique n'est plus du ressort de l'histoire, que les questions sur l'origine des plantes et des animaux et sur la distribution des germes organiques ne sont du ressort des science naturelles. L'histoire, en remontant aux époques les plus reculées [*which, in A. D.* 1810, *meant only to about* 1000 *years before Christ; inasmuch as those revelations, on some* 3000 *years previously to the latter era, derived since from the petroglyphs of the Nile, the Euphrates, and the Tigris, had not been dreamed of, much less commenced*], nous montre presque toutes les parties du globe occupées par des hommes qui se croient aborigènes, parce qu'ils ignorent leur filiation. Au milieu d'une multitude de peuples qui se sont

[53] *De la Longévité Humaine et de la quantité de Vie sur le globe;* Paris, 12mo, 1855, p. 86, viz: that the natural length of animal life is five times the time it takes to "unite the bones with their epiphyses;" which process, in man, takes effect at about 20 years of age.

[54] *Otté's Transl.*, II, pp. 124–8.

[55] *Briefe aus Ægypten, Æthiopien, &c.*, Berlin, 1852; "Vorwort."

[56] *Reiseberichte aus Ægypten*, Berlin, 1855; "Vorwort;" and *Grammatica Demotica*, 1855.

[57] HUMBOLDT ET BOMPLAND, *Voyage*, Atlas Pittoresque, Paris, folio, 1810.

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succédés et mélés les uns aux autres, il est impossible de reconnoître avec exactitude la première base de la population, cette couche primitive au delà de laquelle commence le domaine des **traditions cosmogoniques.**

"Les nations de l'Amérique, à l'exception de celles qui avoisinent le cercle polaire, forment une seule race caractérisée par la conformation du crâne, par la couleur de la peau, par l'extrême rareté de la barbe, et par des cheveux plats et lisses. La race américaine a des rapports très-sensibles avec celle des peuples mongoles qui renferme les descendans des Hiong-nu, connus jadis sous le nom de Huns, les Kalkas, les Kalmucks, et les Bourattes. Des observations récentes ont même prouvé que non seulement les habitants à Unalaska, mais aussi plusieurs peuplades de l'Amérique méridionale, indiquent par des caractères ostéologiques de la tête, un passage de la race américaine [*not across the Pacific nor the Atlantic, but in physiological gradation*], à la race mongole. Lorsqu'on aura mieux étudié les hommes bruns de l'Afrique et cet essaim de peuples qui habitent l'intérieure et le nord-est de l'Asie, que des voyageurs systématiques designent vaguement sous les noms de Tartars et de Tschoudes, les races caucasienne, mongole, américaine [*this last group of humanity was explored* 30 *years later, and to Baron de Humboldt's satisfaction,*[58] *by* MORTON, *in his "Crania Americana"*], malaye et nègre paroîtront moins isolées [*Morton's school now think the contrary established*], et l'on reconnoîtra, dans cette grande famille du genre humain, un seul type organique modifié par des circonstances qui nous resteront peut-être à jamais inconnues." * * * "Nous ne connaissons jusqu'ici aucun idiome de l'Amérique qui, plus que les autres, semble se lier à un des groupes nombreux de langue asiatiques, africaines, on européennes."[59]

Indeed, as the same illustrious writer says elsewhere,[60] these discussions, which we call *new*, "sur l'unité de l'espèce humaine et de ses déviations d'un type primitif," and about the peopling of America, agitated the minds of its first Spanish historians, ACOSTA, OVIEDO, GARCIA, &c.,—on all which consult the learned compendium of DR. MCCULLOH.[61]

As a final illustration of the eagle-eye with which Humboldt seizes each discovery of physical science as it is made, the German and French editions of *Kosmos* itself furnish a happy instance. The first

[58] See the Baron's congratulatory letter to Dr. Morton, in *Types of Mankind*, pp. xxxiv–v.

[59] *Vues des Cordillères*, pp. vii–viii, x.

[60] *Examen critique de l'histoire de la Géographie du Nouveau Continent et des progrès de l'Astronomie nautique aux* 15me *et* 16me *siècles*, Paris, 1836, I, "Considerations," pp. 5, 6.

[61] *Researches, Philosophical and Antiquarian, concerning the Aboriginal History of America*, Baltimore, 1829, "Introduction," and *passim*.

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volume of the former appeared in Germany during April, 1843. "Il fut considéré (says M. Faye,)[62] comme l'expression fidèle de l'état des sciences physiques." In that year but 11 *planets* were known to astronomers. But, by 1846, on the issue of the French version, M. Hencke, of Driessen, having discovered another, it became incumbent upon its translator to count 12:—"Mais les appréciations de M. de Humboldt n'en ont reçu aucune atteinte; au contraire, cette découverte leur apporte une force nouvelle, une vérification de plus." How many more have turned up since, I do not know. Prof. Riddell already enumerated "thirty-eight known asteroids,[63] at New Orleans in February 1856. Can any one suppose that Baron de Humboldt, residing in the centre of royal science at Potsdam, is not at this hour more precisely informed?

Consequently, if my individual convictions happen to differ from the ethnological doctrine of Baron de Humboldt, I wish critics to comprehend that I am fully aware of the enormous disparity existing between our respective mental capacities and attainments; and whilst, on my side, the consciousness of his superiority serves to increase my admiration, I cannot but congratulate myself that,—however other great authorities may be found to agree with, or to contradict him, on the question of human monogenism or polygenism—in rejecting "myths," "fiction," and "pretended tradition," I find myself merely and implicitly following in the wake of Alexander von Humboldt.

So high, indeed, is my individual reverence for the authority of Humboldt, that, in the present essay, my part chiefly confines itself to setting forth his ethnological opinions in juxtaposition to other great men's; leaving the unprejudiced reader to form his own judgment, as to the side on which scientific truth holds the preponderance. With the ethics, said to be involved in such problem, I do not particularly concern myself: my own notions in this matter being similar to those of my lamented collaborator Dr. Henry S. Patterson;[64] viz: that, inasmuch as the religious dogma of mankind's *Unity* of origin has never yet instigated the different races of men to act toward each other like "brothers," it might still occur, in a distant future, that, when the antagonistic doctrine of *Diversity* shall be recognized as attesting one of Nature's organic laws, such change of theory may possibly superinduce some alteration of practice; and then that men of distinct lineages may become, as I desire, more really-*humane* in their mutual intercourse. If under the monogenistic hypothesis, mankind cannot well be worse off

[62] *Cosmos*, Tr. ed., 1846, "Avertissement du Traducteur," pp. iii.

[63] *Address read before the New Orleans Academy of Sciences*, 1856, p. 2.

[64] "Memoir of Samuel George Morton," *Types of Mankind*, pp. li–lii.

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than they are now, some hopes of eventual melioration may, perhaps, be indulged in, by sustainers of the polygenistic point of view.

Humboldt's language on this question admits of no equivoque.—"But, in my opinion, more powerful reasons militate in favor of the unity of the human *species*." * * * "In sustaining the unity of the human *species*, we reject, as a necessary consequence, the distressing distinction of superior and of inferior races:"—and he terminates by citing his brother's beautiful aphorism[65]—"'An idea that reveals itself athwart history, whilst extending daily its salutary empire, an idea which, better than any other, proves the fact so often contested, but still oftener misunderstood, of the general perfectibility of the species, is the idea of *humanity*.'"

I am unconscious, certainly, of a disposition to deny the historical fact last indicated; neither do I question the improvableness of every race of man, each in the ratio of its own grade of organization, nor doubt the beneficial influence of such modern belief wherever it can be implanted: but, not on that account do I consider a *Tasmanian*, a *Fuegian*, a *Kalmuk*, an *Orang-benua*, or a *Bechuana*, to descend from the same blood lineage as the noblest of living Teutons:—whose loftiness of soul gives utterance to an "idea," such as that which no education could instil into the brains of the above-named five, among many other races. The very idea itself is purely "Caucasian;" and as such, together with true civilization, serves the more strongly to mark distinctions of mental organism, amongst the various groups of historical humanity.

To the second proposition, recognizing, with De Gobineau,[66] and with Pott,[67] the existence of "*superior and of inferior races*" as simply a fact in nature, I will submit some objections as we proceed: at the same time that I can perceive nothing "depressing," "cheerless," or "distressing," in any fact, humanly comprehensible, of the Creator's laws, inscrutable to human reason though they may yet be.

But it is the accuracy of the first assertion, viz: "the unity of the human **species**," that, without some ventilation of the Baron's precise meaning, I cannot accept; for the same reasons which, in the Parisian discussion before alluded to (*supra*, p. 404), M. d'Eichthal adduces in his report to the *Société Ethnologique*.

And here, in order to meet ungenerous or misapplied criticism,

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[65] A. DE HUMBOLDT, *Cosmos*, French ed.; I, pp. 423, 430; and p. 579, note 43; quoting W. de Humboldt, *On the Kawi tongue*, III, p. 426. Compare *Otté's transl.*, I, pp. 352, 358; with *Sabine's*, pp. 351, 355–6.

[66] *Inégalité des Races humaines* (supra, p. 188).

[67] *Die Ungleichheit menschlicher Rassen hauptfächlich vom Sprachwissenschaftlichen Standpunkte*, &c.—Halle, 8vo, 1856.

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let me mention, once for all, that, wherever memory recalls to mind a given writer who, in the printed emission of his thoughts, has sustained views bearing directly on a theme before me (of sufficient merit to demand re-perusal), it is my habit always to reproduce his ideas in his own words, in preference to giving those ideas as my own. Apart from literary honesty (the violation of which is looked upon by most *littérateurs* as a venial offence), there accrues positive advantage from such practice; because, "a motion being seconded," the reader is thereby presented with two or more men's opinions in lieu of one. It is to the late Letronne I owe this system. Calling one day upon him, in 1845, at the *Archives*, in Paris, to ask for some information relative to his *Cours d'archéologie égyptienne*, at the Collège de France, where my attendance was ever punctual,[68] he continued, during our long interview, to tumble down, from his well-stocked library, work after work, whence, whilst talking, he made frequent extracts. Struck with his incessant laboriousness, curiosity bade me observe, that the subject must be very important, to require so many references. "Au contraire," he exclaimed, "très insignifiant: c'est que j'ai à faire une petite réponse à M. * * *, de l'Institut." To my remark, that, for such purpose, there hardly needed so much expenditure of time and fatigue on the part of a LETRONNE, he favored me with the following characteristic observation. Said he, in effect—whenever he happened to remember that an author, ancient or modern, had treated on the topic in hand, he always quoted him—1st, because this process established such author's priority; 2d, because it proved that he (Letronne) was conversant with the literature of such subject: and,—when I suggested that he might, in consequence, be deemed, by strangers, to be a mere compiler—he broke forth with, "*Compilateur!* If I had nothing new to say, over and above all these citations, *why should I write?*" This lesson, I trust, was not lost upon me; wherefore my extracts are continued.

"M. Schœlcher[69] [one of the members, no less than the most celebrated of French abolitionists] has, moreover, told you himself that he professes the principle (let us rather say the dogma) of the equality, complete and absolute, of the human races. To him, in view of this great faith of *unity*, all shades, gradations, distinctions, which may exist between different races, are as if they were not. He does not precisely deny them; but he attenuates them as much as possible, he leaves them in the shade, he takes no account of them."

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[68] *Otia Ægyptiaca*, Dedication, and pp. 16, 23–4, 26, 77.

[69] Author, amid various works, of a very correct estimate of modern Egypt, as it appeared politically about 1844, and socially to the present hour.

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"We do not fear," then comments M. d'Eichthal, "to reproach our colleague with exaggerations of this doctrine. His opinions, if taken in all their rigor [why not, *primâ facie*, those of Humboldt also], would attain to nothing less than the *annihilation of ethnology itself;* because ethnology is but the classification of races according to the characteristical differences that distinguish them. Efface or throw aside these differences, and the name of ethnological science has no longer any meaning. Even the question at this moment occupying us ceases to possess any value! All human races being supposed to be *one*, every discussion, relative to those characters which might distinguish them, becomes *ipso facto* superfluous."

It appears to me that, in M. d'Eichthal's argument, the dilemma is well put. Where, in fact, can be the utility of ethnological inquiries, if (say, in America) we set forth with an Anglicized Hebrew myth—which has become metamorphosed, amongst Indo-European nations, into traditionary credence as to fact—that all mankind descend, in a straight line, from "a single pair"? Except as orthodox repellers of free investigation, the *unity*-men have really no place in ethnological science; unless, with Alexander von Humboldt, they use the term "unity" in a philosophical (or "parliamentary") sense, and not in the one currently understood by theologers.

PART I.

To ascertain the likelihood of the stability of such views, it will be convenient to classify the acceptations in which different authors use the term "Unity," as applicable to Mankind, into three categories, viz:—

A.—*Unity* as a theological dogma.

B.—*Unity* as a zoological fact.

C.—*Unity* as a moral, or metaphysical, doctrine.

With regard to the first two (A and B), it is not often easy to separate, into just proportions, the value attached to either by many able writers,—so completely have they fused these two distinct ideas into one mass. The majority, setting forth with a preconceived notion (derived from an early education that they do not possess the moral courage to analyze, still more rarely to shake off), that all the races of men descend from a primordial male and female *pair*, misnamed in English "Adam and Eve,"[70] have, often unconsciously,

[70] *Hebrew Text, Genesis* II, 23. Here occur two distinct words, (of which the contrast is

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perceived in nature nothing but the reflex of their own mental assumption; and, as a consequence, have seized only upon analogies confirmatory of their own sentimental bias; discarding altogether, or leaving out of sight, those natural and historical facts that militate against it.

Foremost and highest, if not perhaps the earliest, among these, stand two contemporaries, Blumenbach[71] and Zimmermann; the former of whom is justly acknowledged to be the founder of anthropological science, as well as of cranioscopy. The latter may be reckoned among the first who established correct principles of animal geographical distribution.

It is not, however (as usually supposed), in his large *Decades Craniorum*, that Blumenbach gave free utterance to his opinions. These are contained in sundry duodecimos, some of which have passed through three improved editions. Those that I first read belonged once to Cuvier, and were indicated to me by the accomplished Librarian of the *Muséum d'Histoire Naturelle*, my friend M. Lemercier. The following extract sums up his argument upon human "Unity,"[72] which he had previously formulated into a doctrine—"*Unica saltem est totius generis humani Species.*" His opening sentence sufficiently establishes the mental preoccupations I have signalized above.

"Ardua quidem, sed cum *ad vindicandam Sacri codicis fidem*, tum ob lucem quam universæ generis humani imo et reliquæ naturali historiæ impertit, utilissima et dignissima disquisitio. Malitia quidem, negligentia et novitatis studium posteriori opinioni favebant. Plures erim humani generis species inde a JULIANI Imperatoris temporibus (*Opera*, p. 192) iis egregie arridebant [*i.e.*, Symon Tyssot,

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effaced in king James' version) for "man," viz: A-DaM and AIS*h*: whilst again the female AIS*h*aH, just formed out of "the-red-man's" *rib*, does not receive the name of K*h*aiUaH (*life*) — vulgaricè K*h*aVaH, and still more vulgarly "Eve" in English — until Chap. III, v. 20. See some mythological analogies in *Types of Mankind*, pp. 563, 573.

[71] With exquisite taste, my friend, Mr. J. Barnard Davis, has resuscitated the portrait of the illustrious German, and, flanked on a medallion by that of his successor Dr. Morton, it adorns that beautiful and truly-scientific work, *Crania Britannica*, London, 1856; the first decade of which I owe to its author's kind regard. Appertaining properly to the *spécialités* of our collaborators Dr. Meigs and Prof. Leidy, I refrain from comments on a great book which, vindicating the rights of Anatomy to priority of respect in the study of mankind, will do good service in rescuing ethnology from a too-exclusive reliance upon *Philology*,—as understood, I mean to say, by Anglo-German monogenists; but not when, as in M. MAURY's chapter I of this volume, it is shown how perfectly true philology attains to the same philosophical results as all other sciences bearing upon man.

[72] BLUMENBACH, *De Generis Humani varietate nativa*, Gottingæ, 1781; pp. 31, 47,—this being the 2d edition of a paper printed 5 years previously; and afterwards considerably enlarged and altered in a 3d edition, Gottingæ, 1795.

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and Voltaire] quorum Sacri codicis fidem suspectam reddere intererat. Facilius porro erat Œthiopes aut Americæ imberbes incolas primo statim intuitu pro diversis speciebus habere, quam in corporis humani structuram inquirere, anatomicos et itinerum numerosos auctores consulere, horumque fidem aut levitatem studiose perpendere, e naturalis historiæ universo ambitu parallela conferre exempla, tumque demum judicium ferre varietatis caussas scrutari. Ita v. c. famosus ille THEOPHRASTUS PARACELSUS (lepidum caput!) primus ni fallor capere non potuit quomodo *Americani*[73] ut reliqui hominis ab Adamo genus ducere possunt, ideoque ut brevi se expediret negotio *duos Adamos* a Deo creatos statuit, Asiaticum alterum, alterum Americanum (*De philosoph. occulen. l.* I)."

From the profound "Theology of Nature" by my venerable friend M. Hercule Straus-Durckheim,[74] whose long researches in comparative anatomy, at the Jardin des Plantes, vindicate Creative Power from vulgar anthropomorphous assimilations, I learn that:—"As concerns zoology, it was natural that the first classifiers—among whom LINNÆUS, who is with reason considered the true founder of science, beyond all distinguished himself—were equally unable to employ other than exterior characteristics; and therefore, soon perceiving that these data were insufficient, the successors of LINNÆUS, and of BUFFON, adhered to seeking the veritable principles of this science in the study of the Anatomy, and of the Physiology of animals, which alone could make them known. It is thus that DAUBENTON, collaborator of BUFFON, and BLUMENBACH, pupil of the illustrious LINNÆUS, were the first to cling to the study of these two sciences, in order to make them the basis of Zoology; a study which our celebrated CUVIER afterwards brought to a very high degree of perfection in his *Leçons d'Anatomie comparée:* that work which forms, since its publication in 1805, the fundamental basis, not merely of all works of Anatomy and comparative physiology that have subsequently appeared, but likewise that of all treatises on Zoology, properly so-called, which discuss the classification of animals. * * * It was he (LINNÆUS) who created nomenclature and

[73] It is to a Jewish Rabbi, nevertheless, as might have been expected, that orthodoxy owes the best proofs of the colonization of America by lineal descendants of Adam and Eve. In 1650, R. Menasseh printed his "Spes Israelis," in which, following the monstrous fables of MONTESINI, he discovered true Indian Jews upon the Cordilleras! (BASNAGE, *Hist. and Relig. of the Jews*, transl. Taylor; London, fol. 1708; pp. 470–87). The Hebrews, however, have settled in many parts of America since; ever preserving their distinctness from all races, white, negro, aboriginal Indian, or Sinico-mongol: the most curious instance being cited by Davis (*Crania Britannica*, p. 8, note) in the Israelitish colony at *Antioquia*, near Bogotá.

[74] *Théologie de la Nature*, Paris, 8vo, 3 vols. (chez l'auteur, Rue des Fossés-Saint-Victor, 14)—1852; III; pp. 247–8.

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style in natural history, giving to each species two names; one, more particularly substantive, forming its *generic Name;* and the second, adjective, indicating the *Species*, and constituting its *specific Name.*" It becomes in consequence unnecessary, after this historical sketch, for us to begin earlier than the lifetime of the Göttingen philosopher.

To Blumenbach, however, the action of "*climate*" was an adequate explanation of the "five varieties" he distinguishes in man. He believed that, "homines nigri subinde albescunt!" also, "et albi e contra nigrescunt!"[75] At a later date, he fortified this view in a treatise entitled "Ueber die Negern insbesondre;"[76] compiled chiefly from English emancipation-sources, and sustaining the perfectibility of negro races, with specimens of their poetry and literary works, on the well-known system of the benevolent Abbé Grégoire.

Very similar are the opinions of Zimmermann,[77] although advocated far more from the naturalist than the theological point of view. Whilst he struggles to indicate the narrow geographical circumscription of the range of most mammifers, he attributes to *climate*, aliment, &c., such wondrous powers, that, according to him, a *hyena*, through transplantation, might, in some generations, become turned into a *wolf!* Next applying these principles to man, Zimmermann attempts to show how *color* is changed by climate, heat producing negroes and cold Esquimaux; cites the old traveller Benjamin, of Tudela, for Jews turning black in Abyssinia;[78] and credits a story related by Caldanus, how once he saw, at Venice, a negro who, brought there in childhood, had, in his old age, become *yellowish!*[79] Thus: "The white man can become black, and the

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[75] *Op. cit.* 2d ed., pp. 56, 69, 72:—3d ed., p. 51 seq.

[76] BLUMENBACH, *Beyträge zur Naturgeschichte*, Göttingen, 12mo, in two parts, 1806, 1811; pp. 73–97.

[77] *Specimen Zoologiæ Geographicæ quadrupedum domicilia et migrationes*, 4to, Lugduni Batavorum, 1777; of which I use the French translation—"Zoologie Géographique, 1r article, *L'Homme,*" Cassel, 8vo, 1784; pp. 44, 131, 135, 189–90.

[78] See, on the *Falashas*, "Types of Mankind," pp. 122–3. That these people are merely African aborigines, converted to a pseudo-Judaism, may now be verified through their portraits (Cf. LEFEBVRE, *Voyage en Abyssinie*, 1839-43; Atlas fol.—"URITE, femme Felacha, agée de 40 ans"—whose race is identical with those of many other non-Jewish nations figured in the same excellent work). Besides, Renan has abolished any imagined philological connection, in the clause, that the speech of these *Falâsyân* "n'a rien de sémitique" (*Hist. des Langues Sémitiques*, pp. 311–2). Compare, also, ANTOINE D'ABBADIE, Letter to M. Jomard, on the "*Falacha*, Juifs d'Abyssinie (3 Nov. 1844): Ce type existe chez les Agaw de l'Atala et du Simen, et chez les Sidama. Il nous est impossible de le ramener au type juif. La langue des Falacha est la même que celle qui vient de s'éteindre dans le Dembya." *Bulletin de la Soc. de Géographie*, Paris, Juillet, 1845; pp. 44, 72.

[79] What was believed last century on these subjects, even by physicians, may be seen in a small work I possess—"Traité de la couleur de la *peau humaine* en général, de celle des

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black on the contrary white, and this change is again carried on through the different degrees of heat and cold"—his conclusion being that "man, possessing himself thus little by little of all climates, becomes, through their influence, here a Georgian, there a negro, elsewhere an Eskimau!"

Next in order should follow Lawrence, could one readily seize (through the variations of theory manifest in different editions of his work) what are the real stand-points of genius so versatile. He has the Protean faculty of saying one thing and believing another, interchangeably; and may be quoted either on the *unity* or *diversity*

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nègres en particulier, et *de la métamorphose* d'une de ces couleurs dans l'autre, soit de naissance, soit accidentellement," by M. Le Cat, Doctor, &c., Amsterdam, 8vo, 1765. No physiologist, however, disputes that *disease* will, more or less temporarily, change the color of the skin. There are albino negroes as well as *white* elephants, raccoons, deer, or mice. On these points, by far the most powerful argument is the late Dr. Charles Caldwell's annihilating review of an "Essay on the causes of the variety of complexion and figure in the human species; by the Rev. Dr. S. S. Smith, of Princeton Coll., N. J., 1810"—published, in four admirable articles, in the Philadelphia "Portfolio," 8vo, 1814; vol. iv., 3d series. See particularly, pp. 26–31, 259–271, "the case of Henry Moss."

Without pretending to enter into discussions in which none but physiologists are entitled to respectful attention, let me refer those desirous of enlightenment to the great work of Dr. Prosper Lucas (*Traité philosophique et physiologique de l'hérédité naturelle*, Paris, 1847, 2 vols. 8vo) for every example, throughout the range of animate nature, bearing upon the laws of "*Innéité* and *Hérédité* in the procreation of the vital mechanism."

The most recent, no less than the most brilliant, American writer of the day on "Human Physiology, statical and dynamical" (New York, 1856, pp. 565–580), seems to me still to lay too much stress upon the *supposed* action of "climate" on the coloration of the human skin; and inasmuch as Dr. Draper's ever-scientific language has given rise to pitiful absurdities like those put forth in an article appropriately entitled "The Cooking of Men" (*Harper's Magazine*, Oct., 1856), it may be well to counterbalance such exaggerations of his high authority by the following paragraph of a physiologist certainly not less eminent. Dr. Saml. Geo. Morton says (*Illustrated System of Human Anatomy, Special, General, and Microscopic*, Philadelphia, 1849, p. 151): "It is a common opinion, that climate alone is capable of producing all those diversities of complexion so remarkable in the human races. A very few facts may suffice to show that such cannot be the case. Thus, the negroes of Van Diemen's Land, who are among the blackest people on the earth, live in a climate as cold as that of Ireland; while the Indo-Chinese nations, who live in tropical Asia, are of a brown and olive complexion. It is remarked, by Humboldt, that the American tribes of the equinoctial region have no darker skin than the mountaineers of the Temperate Zone. So also the Puelchés of the Magellanic plains, beyond the fifty-fifth degree of south latitude, are absolutely darker than Abipones, Tobas, and other tribes, who are many degrees nearer the equator. Again, the Charruas, who inhabit south of the Rio de la Plata, are almost black, whilst the Guaycas, under the line, are among the fairest of the American tribes. Finally, not to multiply examples, those nations of the Caucasian race which have become inhabitants of the Torrid Zone, in both hemispheres, although their descendants have been for centuries, and in Africa for many centuries, exposed to the most active influences of climate, have never, in a solitary instance, exhibited the transformation from the Caucasian to a negro complexion. They become darker, it is true; but there is a point at which the change is arrested. Climate modifies the human complexion, but is far from being the cause of it."

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side, accordingly as we stumble upon a given edition of his learned and useful book. In the one before me,[80] I find this conclusion: "5thly. That the human species, therefore, like that of the cow, sheep, horse, and pig, is *single;* and that all the differences which it exhibits, are to be regarded merely as varieties." Alas! I fear that if the *unity* of mankind cannot be sustained upon better zoological or analogical grounds than this supposed singleness of *species* of cows, sheep, horses, or even pigs, there are but few naturalists, at the present day, who do not take an opposite view.

A long list of minor writers on man, exclusive of numerous theological *dilettanti*—of less importance than the Abbé Frère[81] or the Abbé Migne[82]—might here be introduced, before reaching Eusèbe de Salles[83] at Marseilles, Hollard[84] of Geneva, or Ward[85] in London —all of whom, setting out with preconceived determination to vindicate the parental claims of "Adam and Eve," enter *ipso facto* into the category above distinguished by the letter A.

The whole of these authors, great or small, merge into PRICHARD, —whose profound bibliographical knowledge and unsurpassed industry constitute at once the *alpha* and *omega* of all that may survive the criticism of advancing science, in the above-named books. In our "Types of Mankind," what my collaborator, Dr. Nott, and myself deemed to be this revered ethnographer's fallacies, has already been pointed out. By omitting to bestow adequate consideration on "permanence of type," when all materials were within his reach, Dr. Prichard exposed the vital error of his system, leaving to Dr. Morton the honors of the field. I have no wish to disturb the ashes of departed greatness, except to consecrate those of both men in funereal urns of equal grandeur. Mr. Edwin Norris's new and beautiful edition[86] is embellished, and in philology usefully extended, by this learned gentleman's notes. The ending sentence, on the final page, discloses the only *ultimatum* of Prichard's doctrine that now concerns us. It seems like the last vestige of dogmatical bias

[80] *Lectures on Physiology, Zoology, and the Natural History of Man;* 1 vol. 8vo, London, 1819; compare p. 501 with 548.

[81] *Principes de la Philosophie de l'Histoire,* Paris, 1838; pp. 73–89:—and *L'Homme connu par la Révélation,* Paris, 1833; II, pp. 195, 206–221.

[82] *Dictionnaire de l'Ethnographie moderne,* 4to, double column, Paris, 1853, pp. 1927! Its only merit consists in the republication, by way of introductory, of D'OMALIUS D'HALLOY'S excellent *Éléments d'Ethnographie.*

[83] *Hist. Gén. des Races Humaines, ou Philosophie Ethnographique,* Paris. 12mo, 1849; pp. 295–99.

[84] *De l'Homme et des Races Humaines,* Paris, 12mo, 1853; last page.

[85] *The Natural History of Mankind,* London, 12mo, 1849; p. 7, &c.

[86] PRICHARD, *Natural History of Man,* edited by Edwin Norris, Esq., London, Baillière, 2 vols. 8vo, 1854; II, p. 714.

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which its upright penman did not live to modify or efface: "We are entitled to draw confidently the conclusion that all human races are of one species and one family."

Not in any sense derived from theological formularies, however, does Alexander von Humboldt understand the term "unity" as classified under our letter A. No such idea can be found throughout the eleven pages of *Cosmos* devoted to the "human species" as a component part of nature. On the contrary, in the paragraph that heads this essay (*ubi supra*), Humboldt expressly repudiates *myths*, *fiction*, and *pretended tradition*. Let us inquire whether the Baron's definition of this word should find a place with letter B.

To a certain extent it must; because the phrase "unity of the human *species*," preceding and following the declaration of the great physiologist John Müller, viz: that "human races are the forms of an unique species," [87] necessarily implies connection with the terminology of Natural History. Such, I find, is the sense in which the Baron's learned countryman, Dr. Zeune, understands the same passage—"The expression, 'unity of the human race,' has been variously misunderstood, and referred to the so-called unity, or descent from a single human pair. But the honored author did not mean the world-historical unity, but the natural-historical unity; that is, the prolific perpetuation of the different human races, so that their hybrids can again cohabit fruitfully with each other; and not like allied genera [groups], such as the horse and ass, wolf and dog, produce sterile hybrids, like mules [cavaline-asses] and wolf-dog [lupine-hound], which can only propagate themselves through the parent stock." He remarks, besides, "To draw the origin of the different human races from one single man is absurd and impossible. These races exist independently one from another since the oldest times. Which was the most ancient it is impossible to say." [88] So also, still more recently, does Owen,[89] whose anatomical authority is to none inferior, conclude that—"Man is the sole species of his genus, the sole representative of his order;"—almost the words of Blumenbach, echoed by eminent naturalists for three consecutive generations; especially by those who with Cuvier,[90] De Blainville,[91] Gervais,[92] and

[87] *Cosmos*, Fr. ed., i. p. 425; and *infra*.

[88] *Über Schadelbildung zur festern Begründung der Menchenrassen*, Berlin, 1846.

[89] Newspaper report of Lecture on *Anthropoidæ* before the *British Association for the Advancement of Science*; session of 1854.

[90] GRIFFITH'S transl., I, London, p. 129.

[91] *Ostéographie, Mammifères*, Primates; 4to., 1841.

[92] *Trois règnes de la Nature, Hist. Nat. des Mammifères*, 4to., Paris, 1854; 1re. partie, pp. 7–8

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Chenu,[93] have discussed more recently the points of resemblance, or of disparity, existing between the *Bimanes* and the *Quadrumanes*. Their united results will be passed under review in the second division of our essay.

Nevertheless, Morton[94] and Agassiz[95]—accounted by celebrated naturalists, anatomists, cranioscopists, palæontologists, and ethnographers, to possess a weighty voice in the premises, have not been able to reconcile the term "species," as applied customarily (and as I think, too loosely) to mankind, with the rigorous use of this word in more broadly-marked departments of Natural History.

Dr. Meigs's, Prof. Leidy's, Dr. Nott's, contributions to the present volume cover the ground of debate on a point which, in its bearings upon mankind, each writer has studied as profoundly as any ethnologist living. For my individual part, I follow my master in archæology, Letronne; who, in 1845, commenced his first lesson to our crowded Egyptian class, at Paris, with the sentence—"Messieurs! avant tout, commençons par nous entendre sur des *termes*:" because, until the precise limit of the designation "species" becomes absolutely defined, or even conventionally agreed upon, it might, perhaps, be prudent to suspend its further obtrusion into *Anthropology*.

A naturalist of repute has remarked—"The Germans themselves, whose terminology did possess the fault of being so vague, now aspire to exactitude of language. This does not mean to say that the definitions of naturalists have an *absolute* value, that is not possible in human sciences; but they have at least a *precise* value. Everybody [?] now-a-days knows what is understood by the words *species*, *race*, and *variety*.

"It is certain that, in scientific discussions of which man has been the object, the words *genus*, *species*, *race*, and *variety*, have been too often confounded. Nevertheless, the meaning of these words is now perfectly determined, and it suffices, to avoid all error, to stick to the definitions laid down by naturalists. Thus, one generally understands by *species*, an assemblage of beings which descend, or may be regarded as descending, from common parentage [that is, first a rule is made absolute, *à priori*, and then all the different types of men are made to fit into it!] The union of many species, possessing between each other multiplied affinities, forms a *genus*. The words *race* and *variety* both indicate a variation of the type of the species, of which,

[93] *Encyclopédie d'Histoire Naturelle*, Paris, 1852? vol. i, "Quadrumanes, pp. 1–21: probably among the most copious as well as the fairest analyzers of these questions.

[94] *Types of Mankind*, pp. 81, 375, and elsewhere, cites Dr. Morton's writings.

[95] *Op. cit.*, p. lxxiv, Prof. Agassiz's definitions. See also the Professor's fresh contribution, *ante*.

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moreover, they are derivatives. But the word *variety* is not applicable save to individuals: the word *race* is an assemblage of individuals descending from the same species and transmitting to each other determinate characters.

"The difference between *species* and *race* is, therefore, that the first possesses something fixed, something independent of accidental and variable conditions of the (*milieu ambiant*) *fluctuating centre*. The second, on the contrary, presents ordinarily the result of this (*action du milieu*) *central action*, and in consequence is essentially variable.

"Conformably to these definitions, all mankind constitute but a single *species*, although there are among them some different *races;* but these races can all be brought back to one and the same primitive type."[96] This explanation I deny *in toto*.

M. Paul de Rémusat, in ethnological studies no tyro, after stating both sides with fairness, and then concluding for his part that "unity" is impossible,[97] frankly inquires—"What, then, is this *specific* character? Can one give to species a clear and precise definition? Do there even necessarily exist 'species,' as our minds are prone to suppose? * * * whilst (forsooth) we cannot come to a common understanding, either upon the meaning of the word 'species,' nor determine a sign, real and invariable, of distinction between the different classes called by this name"! Another of those clear-sighted naturalists, trained at the *Jardin des Plantes*, whose special gift it seems to pierce through mystifications, started, ten years ago, a series of difficulties about "species" which none but thorough-bred naturalists (not the mere theological *dilettante*) are competent to analyze or remove: nor will outsiders like myself fail to be enlightened, as well as amused, by whatever is scored by the steel-tipped pen of M. Gérard.[98] Again, Prof. Joseph Leidy,[99] rejecting previous definitions, observes that—"A *species* is a mere convenient word with which naturalists empirically designate groups of organized beings possessing characters of comparative constancy, as far as *historic experience* [precisely the criteria demanded (ubi supra) by Joh. Müller, and which both the Humboldts acknowledge to be, with respect to human *origines*, a powerless implement] has guided them in giving due weight to such constancy. According to this definition," Prof. Leidy continues, "the races of men are evidently distinct species."

[96] M. DE QUATREFAGES, at the *Séance du* 9 *Juillet*, 1847, of the Société Ethnologique de Paris (*Bulletin*, Tome i., 1847; p. 237).

[97] "Des Races Humaines"—*Revue des Deux Mondes*, 15 Mai, 1854, pp. 788–804.

[98] D'ORBIGNY, *Dictionnaire Univ. d'Histoire Naturelle*, Paris, 1844, vol. V, *sub voce* "Espèce," pp. 438–52.

[99] NOTT'S Appendix B. to *The Moral and Intellectual Diversity of Races*, &c., from the French of De Gobineau, by H. Hotz, Philada., 12mo., 1856; pp. 480–1.

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And finally, Alfred Maury, no raw recruit even in the physical sciences, the analysis of which preceded his present high *status* in the archæological and ethnographic—reviewing Hotz's *De Gobineau*, and Pott's *Ungleichheit menschlicher Rassen*,[100] critically observes—"The constitution of the human mind is one, without doubt; but what signifies the mental unity of humanity, if, in its application, men treat each other as members of inimical or rival families,—if the force of things always condemns the ones to fall beneath the domination of the others, and to extinguish themselves in their arms? To dispute about knowing whether races constitute different 'species,' or merely 'varieties,' is to put forth school-divinity and not science. That which is necessary is, to measure the extent of separations, and hence ascertain the proportions of those inequalities that none can deny. The *name* which one may give to human races will not affect the thing itself, nor in any way alter the reality."

"Varius Sucronensis ait, Æmilius Scaurus negat: utri creditis, quirites?"[101]

In the face of such objections, before an archæologist can subscribe unconditionally to the "*unity* of the human 'species,'" he ought to wait until some revelation enables those who use this apothegm to show that they really comprehend the signification of a term logically inherent in their proposition. That is to say,—adopting here the forcible if trite aphorism of a scientific colleague—in plain English and without diplomatic circumlocution, when dictionaries furnish me with as precise a meaning for the term "species" as I can discover for such words as *beef*, or *mutton*,[102] it will be time enough for accepting its alleged corollary, viz: the "unity" of sanguineous, or congenital, descent for all the diverse *groups* of men—now distinct in colors, in conformations, in languages, in geographical habitats, in historical traditions, and in all their other countless moral, intellectual, and physical phenomena—from a mythic "Adam and Eve."

"At the very onset we are met by the question, What is a *species?* and sides will be taken according to the answer each one is ready to adopt. The definition of a species does not necessarily include descent from a single pair, because the first male [AIS*h*] and the first female [AIS*h*aH] would, by the definition, be of different species,"—acutely remarks Prof. Haldeman.[103]

In that whereon everybody, whether competent to decide or not, volunteers an "opinion," typographical facilities *cæteris paribus*

[100] *Athenæum Français*, Paris, 19 Avril, 1856; p. 328.

[101] Bentley, *Phalaris*, ed. 1836; i., p. xii.; from *Val. Max.* iii. 7.

[102] "*Le mot est peut-être un peu féroce; mais, sacre bleu, il est sincère!*"—as Penguin says, in "Riche d'Amour."

[103] *Recent Freshwater Mollusca* (supra) pp. 3–4.

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enable me to do the same; and mine, on this mystified term "species," as applicable to the *genus homo* alone, will, like that of other men, pass for what it may be worth: the critic always remembering that a definition is precise in the ratio of the fewness of its words. I submit to fellow-archæologists—

SPECIES; that which, through conjunction with itself, always, according to *experience*, reproduces itself.

Thus, by way of example, the union of a negro with a negress produces a *negro;* that of an American Indian with a squaw produces an *Indian;* that of a Jew (circumcision, *in-* or *ex-* clusive) with a Jewess produces a *Jew;* that of a Saxon male with a Saxon female produces a *Saxon;* and so forth, invariably, throughout all the families of men. In any case where the offspring of each chances not to be identical, in its race-character, with the supposed parents, such deviation can occur only where either parent is not of pure blood; and proves, *ipso facto*, that the ancestral pedigrees of one or the other procreator must, within the limit of about three to seven (or more) preceding generations, have been crossed by a foreign stock.

Indeed, I do not see why the first definition of Prichard does not circumscribe all the above examples. It is that given in the *second* edition,[104] 1826, of his erudite works; which differs, not merely through the entire absence of this lucid rule in the *first*,[105] 1813; but also essentially from the one laid down at a later period, 1837, in the *third*.[106] Prichard's capacious mind, like that of all conscientious inquirers, was progressive; and those who really know the various editions of his "Researches," cannot fail to admire how quickly he dropped one hypothesis after another, until his last volume closes with a complete abandonment of the *unity* of Genesis itself.[107] It is probable that his biographer, Dr. Cull, is as little acquainted with these bibliophile discrepancies, as with ethnological criticism generally—Hebrew palæography inclusive.[108] Prichard printed in A. D. 1826:

"The meaning attached to the term Species [almost identical with

[104] *Researches into the Physical History of Man*, London, 2d edition, 8vo, 1826; vol. I, pp. 90–1.

[105] *Op. cit.*, 1st edition, London, 8vo, 1813—nothing of the kind!

[106] *Op. cit.*, 3d edition, London, 8vo, 1837; vol. II, p. 105:—cited at length in "Types of Mankind," p. 80.

[107] *Physical History of Mankind*, 8vo, London, 1847; vol. V, pp. 560–65.

[108] NORRIS'S edition of Prichard's *Natural History of Man;* London, Baillière, 1854; vol. I, pp. xxi–ix:—"Short biographical Notice," by RICHARD CULL, ESQ., "Honorary Secretary." How correctly he reads English, may be inferred from his critique of Agassiz's paper (*Address to the Ethnological Society of London*, May, 1854; London, 8vo, pp. 12–13.); where he substitutes "6. The Hottentot *realm*," (p. 8) for "Hottentot *fauna*" (compare "Types of Mankind," p. lxxvii).

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LACORDIÈRE'S in his *Entomologie*], in natural history, is very simple and obvious. It includes only one circumstance, namely, an original distinctiveness and constant transmission of any character. A race of animals, or plants, marked by any peculiarity of structure, which have always been constant and undeviating, constitutes a *species;* and two races are considered as specifically different, if they are distinguished from each other by some peculiarities, which one cannot be supposed to have acquired, or the other to have lost, through any known operation of physical causes: for we are led to conclude, that the tribe thus distinguished cannot have sprung from the same original stock." It need hardly be repeated that the learned ethnographer endeavors to show the inapplicability, owing to deviations, of this law to *Man*. My studies lead me to the opposite opinion, exemplified in the instances above enumerated.

Such simple principles are notorious to dog-fanciers, cattle-breeders, or poultry-men; and are practised by them with unerring pecuniary success, in the rearing of animals, quadruped or biped. It is but a superstition that imagines mankind not to be bound by the same natural law.

Under this self-evident rule, some scholastic confusion of ideas may be disposed of through a few interrogatories. If, by "species" are meant beings of the same (equally-conventional word) *genus*, whose sexual union produces offspring, mankind fall into that class unquestionably; with dogs, sheep, goats, and other mammals susceptible of *domestication*;[109] but what living naturalist, of repute, at this year 1857, any longer classifies all the *canes*, all the *oves*, or all the *capræ*, each into a single "species?" If hybridity, in any of its various and as yet unsettled degrees, be considered a test of "species"—*i. e.* the production of progeny more or less unprolific *inter se*—then, in Australia,[110] a native female of the aboriginal stock ceases, after cohabitation with an English colonist, to procreate upon reunion with a male autochthon of her own race:—then, in Van Diemen's Land, before the deportation of its few (only 210) remaining aborigines, in 1835, to Flinder's Island, Bass's Straits,[111] even a convict population of athletic and unscrupulous English males failed, in their intercourse with Tasmanian females,

[109] MORTON, *Hybridity in Animals and Plants*, New Haven, 1847; p. 23.—The *égagre* is, however, reputed to he the father of all goats; the *mouflon*, that of all sheep; the Nepaulese *buansu* (*canis primævus*) that of all dogs; just as *Adam* that of all mankind; according to Marcel de Serres (*Cosmogonie de Moïse*, I, pp. 307–22).

[110] STRZELECKI, *Physical description of New South Wales and Van Diemen's Land*, London, 8vo, 1845; pp. 346–7:—JACQUINOT, *Zoologie*, II, p. 109:—KNOX, *Races*, p. 190.

[111] QUOY et GAIMARD, *Voy. de l'Astrolabe*, 1826–9; *Zoologie*, Paris, 8vo, 1830; I, p. 46:—D'OMALIUS D'HALLOY, *Des Races Humaines*, 1845; p. 186.

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not merely to produce an intermediate *race*, but to leave more than one or two adult specimens of their repugnant unions; nor are there reports either of *hybrids*, resulting from the mixture of Europeans with the Andamanes of the bay of Bengal:—then, in the ultra-tropical parts of America, as well as in its southern or tropical States, mulattoes, produced by intercourse between exotic Europeans of the white race, with equally-exotic African females of the black, die out, unless recrossed by one or other of the parental stocks, in three or four generations:[112] — then, in Egypt, the Memlooks, or "Ghuz," originally male slaves[113] of the Uzbek, Ouïgour and Mongol races, and afterwards kept up by incessant importations of European, Turkish, Circassian, and other white boys (intermixed with negro slaves), were not only unable to rear half-caste children to recruit their squadrons; — but, whilst their blood-stains are scarcely yet obliterated on the battlements of the Cairine-Citadel since their slaughter in 1811, not a trace survives of their promiscuous philogamy among the Fellàh population of the Nile: — then, in Algeria, the Moorish (*Mauri*), or Mauresque[114] inhabitants of seaboard cities, [in a climate which, except in depressed agricultural localities (where the *Moors* do not reside), is like that of southern Spain] unstrengthened (as of yore in the piratical days when Christian captives of all shades, and negro prisoners of every hue, thronged their slave-bazaars) by the perpetual influx of new and vigorous blood, — are dying off at a fearful rate[115] through the inexorable laws of hybridity; at the same time that, after twenty-five years of experimental agri-

[112] NOTT, *Natural Hist. of the Caucasian and Negro Races*, Mobile, 1844; pp. 16–7, 19, 28, 30–5:—*Biblical and Physical Hist. of Man;* New York, 1849; pp. 30–47.

[113] KLAPROTH, *Tableaux de l'Asie*, Paris, 1826, pp. 121–2. EBN KHALEDOON, *Histoire des Berbères et des Dynasties Musulmanes de l'Afrique Septentrionale*, Transl. de Slane, Alger, 1851, II, p. 49 — and Note from QUATREMÈRE (*Mém. sur l'Eggpte*, II, p. 356).

[114] CARETTE, *Exploration Scientifique de l'Algérie*, 1840–2, Paris, 1853; III, pp. 306–10, for intermixture of Races, &c. PASCAL-DUPRAT, *Essai Historique sur les Races anciennes et modernes de l'Afrique Septentrionale*, Paris, 1845; pp. 217, 240–64:—but the best definition of the varied inhabitants of that part of Barbary may be seen in ROZET (*Voyage dans la Régence d'Alger*, Paris, 1833), who, among the "sept variétés d'hommes bien distinctes les unes des autres; les *Berbères*, les *Maures*, les *nègres*, les *Arabes*, les *Turcs* et les *Koulouglis*," clearly strikes out the mixed populace of *Maures* (Moors); and proves, as well their hybridity, as the misconceptions (Shakspeare's *Othello* to wit) prevalent about their name "Moor" (II, pp. 1–3, 51–2). On the opposite side, consult BERTHERAND, *Médecine et Hygiène des Arabes*, Paris, 1855; pp. 174, 556.

[115] BOUDIN, *Histoire Statistique de la colonisation et de la Population en Algérie*, Paris, 1853; pp. 5, 21, 30: — See also KNOX (*Races of Men*, pp. 197–210), who acknowledges that he derives his information from a former publication of the highest authority in these questions, my honored friend, M. le Dr. Boudin, Médecin en Chef de l'Hôpital Militaire du Roule, Paris (*Lettres sur l'Algérie*, 1848). I await with great expectations, having seen some of its proof-sheets at Paris, Dr. Boudin's *Traité de Statistique et de Géographie médicales* (now "sous presse chez Baillière"), for complete establishment of all these positions.

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culture, civil, military, and convict, through which myriads of colonists have perished, it has become a settled fact in the Imperial administration that, as tillers of the soil, Frenchmen can never colonize Barbary;[116] [like the English in Hindostân, the Dutch in Malayana, the Spaniards in South America, and the Portuguese in Africa, France must employ *native* labor — that of the indigenous "adscripti glebæ," viz., the Berber race, or its exotic congener the Arab]:—and then, finally, not to burthen the page with illustrations that every country in the world can supply, if history, which means *experience* (the only test recognized by Müller, Leidy, and by archæology), be taken as a criterion, we have yet to learn whether the greatest nations have not developed themselves through the union of *proximate* "species," and the most deplorable arisen through that of *remote* ones.

To explain my conception, two references will at present suffice: first, to our last publication,[117] for Dr. Nott's definition of ethnic subdivisions of 'species;' and next, to the work of our learned friend Count A. de Gobineau;[118] from whom—however I may differ in trifles relating to his fundamental theory of the *Arian* origin of all civilization, or to his classifications of Xth Genesis—ethnology, in his three chapters on the Romans, derives one of the most masterly elucidations ever penned by any historian. Nor is this eulogium merely a prejudice of my own; three of the best-informed and critical scholars of England, to whom I lent M. de Gobineau's volumes, coinciding entirely in such hearty acknowledgment. The following specimen will be new to the general reader: —

"But there appeared once, in the history of decaying peoples, a man strenuously indignant at the debasement of his nation; discerning with eagle eye, through the mists of false prosperity, the abyss toward which a general demoralization was dragging the commonwealth; and who, master of all the means for action, — birth, riches, talents, personal standing, high appointments—found himself, at the same time, robust in sanguinary nature, and determined not to shrink from the use of any resource. This surgeon — this butcher, if you please—this august scoundrel, if you like it better—this Titan — showed himself in Rome at the moment when the republic, drunk with crimes, with dominion, and with triumphal

[116] DESJOBERT, *L'Algérie*, 1847; pp. 5–8, 23–29: — Id. *Discours* in the Assemblée Nationale Législative, Session de 1850, pp. 8–18: — Id., *Documents Statistiques sur l'Algérie*, 1851, pp. 3–5. Dr. Nott has enlarged upon these new facts in his Chap. IV, *ante*.

[117] *Types of Mankind*, pp. 81, 407–10.

[118] *Essai sur l'Inégalité des Races Humaines*, 1855; III, Chap. V, VI, VII; especially pp 274–7.

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exhaustion, gnawed by the leprosy of every vice, was rolling itself over and over towards an abyss. He was LUCIUS CORNELIUS SYLLA. * * *

"At the end of a long career, after efforts of which the measure of intensity is the violence accumulated, Sylla, despairing of the future — melancholy, worn out, discouraged — abdicated of his own accord the dictator's hatchet; and, resigning himself to live unoccupied in the midst of that patrician or plebeian populace which still shuddered at sight of him, he proved, at least, that he was not a mere vulgar and ambitious politician; and that, having recognized the inanity of his hopes, he cared not to preserve a sterile power. * * * "There really existed no chance of his success. The populace he wished to bring back to the manners and discipline of the olden time, resembled in nothing that republican people who had practised them. To convince oneself, it suffices to compare the ethnic elements of the days of Cincinnatus [B. C. 460] with those existing at the epoch when the great dictator lived [B. C. 138–81].

TIME OF CINCINNATUS.			TIME OF SYLLA.		
Aristocracy.	*Sabines*, in majority; *Etruscans*, a few; *Italiots*, a few.	1st. Intermixed majority of white and yellow [dark] races;	Aristocracy.	*Italiots*, crossed with Hellenic blood. *Italiots.*	1st. Majority Semitic ized;
Plebeians.	*Sabines*, *Samnites*, *Sabellians*, *Siculs*, *Hellenes*, a few.	2d. Very feeble Semitic immigration.	Plebeians.	*Greeks* of Magna Græcia, and from Sicily; *Hellenists* of Asia; *Shemites* of Asia; *Shemites* of Africa; *Shemites* of Spain.	2d. Minority Arian: 3d. Extreme subdivision of the yellow [dark] principle."

It is impossible to bring back into the same frame-work two nations which, under the same name, resemble each other so little," very correctly observes M. de Gobineau: and I will only add that, when ethnologists apply this excellent method of analysis to every nation, — especially to these United States of America — they will obtain practical results undreamed of by literary historians, who, believing in the "Unity of the human *Species*," have neither any idea of these amalgamations of distinct races, nor of their natural, and therefore inevitable, consequences for good or evil.

Again reverting to our questions as to the word "species," after stripping away sophistries that encumber such vague term, let me ask, — does any one pretend, when races are called by their intelligible names, that carnal intercourse between an Eskimo and a Negress ever originated what we understand by a *Greek*,—between a Dane and a Dyak, an *Arab*,—between a Tungousian and an Israelite,

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a *New Zealander*,—or between a Botocudo and a Tasmanian, a *Mantchou Tartar*, a *Lapp*, a *Bechouana*, or perchance a *Kelt?* In every one of these imaginary, and, anciently, geographically-impossible unions, each fecund act of coition could produce but a "half-breed;" intermediate, that is, between any two races. One feels ashamed, now that transformation of one "species" of animal into another through the exploded power of metamorphosis, in former days of ignorance attributed to *climate*, is rejected, as contrary to experience, by all living naturalists (even the theological)—one really blushes to descend to such common-place methods of illustration; but the necessity is imperious in view of the amount of perversion and mediæval credulity still passing currently as regards the study of Man.

And when BLUMENBACH[119] and ISID. GEOFFROY ST. HILAIRE,[120] BURDACH[121] and LUCAS,[122] BÉRARD[123] and GIROU DE BUZAREINGUES,[124] WALKER[125] and CHEVREUIL,[126] FLOURENS[127] and MORTON,[128] VOGT[129] and PRIAULX,[130] pile up instances (among mammifera alone), whereby the so-called *laws* of "species," and often too of "genera," are set at naught by contradictory facts, is it not folly in ethnologists to go on wasting their time about the encyclopædic meaning of an Anglicized foreign bisyllable, which every true naturalist of the present day is forced to qualify with explanatory adjectives, according to his individual acceptation of its sense? Voltaire pithily remarks —"Ce qu'on peut expliquer de vingt manières différentes ne mérite d'être expliqué d'aucune:"—and for myself, I have long ago discarded its use in ethnography,—substituting "*Type*" when I intend to designate men whose physical appearance stands in strongest contrast to that of others (*ex. gr.* Swedes and Negritos, Chaymas and Georgians, Kourilians and Mandaras, Taïtians and Yakuts); or "*Race*" where the distinction is not so strongly characterized (as between Italians and Greeks, Jews and Arabs, Malgaches and Ma-

[119] *De Generis Humani varietate nativa*, 1781; pp. 7–11.

[120] *Histoire générale et particulière des Anomalies de l'Organisation*, Paris, 1832; i. pp. 221–6.

[121] *Traité de Physiologie*, trad. Jourdan, Paris; 2d vol. 1838, pp. 182–5, 261–70.

[122] *Traité philosophique et physiologique de l'Hérédité Naturelle*, Paris, 1847; i. pp. 193–209; ii. pp. 177–329.

[123] *Cours de Physiologie*, Paris, 1850–55.

[124] *De la Génération*, Paris, 8vo., 1828; pp. 124–132, 307–8.

[125] *On Intermarriage*, London, 8vo. 1838;—and *Physiognomy founded on Physiology*, 1834.

[126] *Journal des Savants*, Juin, 1846; p. 357.

[127] *De la Longévité Humaine*, Paris, 1855; pp. 106–161.

[128] NOTT, in *Types of Mankind*, chap. xii. and p. 724, notes, cites all important papers of Dr. Morton.

[129] CARL VOGT, *Höhlerglaube und Wissenschaft*, Wiessen, 1855; pp. 59–67.

[130] OSMOND DE BEAUVOIR PRIAULX, *Quæstiones Mosaicæ*, London, 1842—on "breeding in and in," pp. 471–88.

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lays);[131] but in no case do I affirm by employment of such terms, whilst in most cases doubting, with the illustrious Humboldts, the common pedigree of any two of such *types*, or *races*, back to a mythic single pair called "Adam and Eve."

"Hence, then," I accept Marcel de Serres's rule, disputing only the accuracy of the facts through which he would endeavor to eliminate mankind from its action — "generation ought, it seems, to be considered as the type of *species*, and the only foundation upon which it can be established in a certain and rational manner:"[132] guarding it with the language of the learned Colonel Hamilton Smith,[133] viz: —that, "if no better argument, or more decisive fact can be adduced, than that axiom which declares, that 'fertile offspring constitute the proof of identity of species,' we may be permitted to reply, that as this maxim does not repose upon unexceptionable facts, it deserves to be held solely in the light of a criterion, *more convenient in systematic classification than absolutely correct.*"

Should these views meet with favor among fellow-students in the Mortonian school of ethnology, it will become (save and except for their always meritorious collection of facts) almost a work of supererogation to inquire what individual of former sustainers of the "unity of the human *species*" deserves to be classified under the letter B.

Thus Camper,[134] Lacepède,[135] Lesson,[136] or Griffith,[137]—each a master in mammalogy, without reference to their copyists innumerable, —are maintainers of human unity of *species* on zoological grounds; as are likewise Walchnaer,[138] Haller,[139] Pitta,[140] Wagner,[141] Bakker,[142]

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[131] See BLANCHARD, in DUMOUTIER'S *Anthropologie*, Paris, 1854, pp. 18–9.

[132] *Essai sur les Cavernes à Ossements*, Paris, 8vo., 3d ed., 1838; pp. 234, 268, 398.

[133] *Natural History of the Human Species;* Edinburgh, 12mo., 1848; p. 21:—compare DESMOULINS (*Races Humaines*, pp. 194–7), for certain limits of this law of generation.

[134] *Œuvres de Pierre Camper qui ont pour objet l'Histoire Naturelle, la Physiologie et l'Anatomie comparée*, Paris, 8vo., 1803; ii. p. 453.

[135] *Histoire Naturelle de l'Homme*, Paris, 18mo., 1821; p. 183.

[136] *Zoologie*, Paris, 1826, 4to.; i. p. 34 — in DUPERREY, *Voy. de la Coquille*, 1822–5: also, Ibid. *Races Humaines*, in *Complément des Œuvres de Buffon*, Paris, 1828; i. p. 44.

[137] Translation of CUVIER'S *Animal Kingdom*, London, 4to., 1827; i. Introd. p. xi.; and "Supplemental History of Man," p. 178, seq.

[138] *Essai sur l'histoire de l'Espèce humaine*, Paris, 8vo., 1798, p. 10; — and *Cosmologie, ou Description générale de la Terre*, Paris, 8vo. 1816; pp. 159–61.

[139] *Elem. Physiol.*, p. vii. lib. xxviii. § xxii.

[140] *Influence of Climate on the Human Species and on the varieties of Man arising from it*, London, 8vo., 1812; p 16.

[141] *Naturgeschichte des Menschen Handbuch der populären anthropologie*, Hempten, 8vo., 1831; ii. pp. 323–243.

[142] *Natuur-en Geschiedkundig Onderzoek aangaande den Oorspronkenlijken stam van het Menschelijk Geslacht*, Haarlem, 8vo., 1810, p. 176.

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Serres,[143] Herder, Carpenter, and many other writers, of more or less note, upon physiological. To these, although his proper *locus standi* should be under the letter A, may be added Dr. Hall,[144] the learned editor of Bohn's London edition of PICKERING'S *Races of Man*.[145] An eminent and far-travelled naturalist, accustomed to observe facts and weigh evidence equitably, the latter has maintained strict neutrality in describing the "eleven races of men" seen by himself; and the best proof of the high value attached to Dr. Pickering's opinion, no less than of his impartiality, is, that passages of his work have been cited by Morton in support of *diversity*, and by others of the *unity* of mankind.

There is a third hypothesis to which it is still more difficult to assign a place. Emanating from the schools of transcendental anatomy, none but embryologists are competent to discuss its manifestations. Posited in the language of Dr. Knox,[146] its logical consequences would certainly demonstrate an *unity* of human origins; but upon principles, it strikes me, more disagreeable to theologers than even the establishment of *diversity* itself!

"'There is but *one animal*,' said Geoffroy, 'not many;' and to this vast and philosophic view, the mind of Cuvier himself, towards the close of life, gradually approached. It is, no doubt, a correct one. Applied to man, the doctrine amounts to this, — Mankind is of one family, one origin. In every embryo is the type of all the races of

[143] *Le Moniteur*, Paris, 3 Fev., 1855; Feuilleton, "Muséum d'histoire naturelle—Cours d'Anthropologie de M. Serres"—"M. Serres a declaré tout d'abord ses convictions en ce qui touche l'*unité* humaine. Il y croit fermement, et s'indigne (!) parfois contre ceux qui osent élever la-dessus l'ombre d'une doute." This virtuous indignation sits well on the author of *Anatomie comparée du Cerveau dans les 4 classes des Animaux Vertébrés* (Paris, 1824—see Atlas, p. 40, figs. 264, 266; and Pl. xiv., figs. 264–6), who, under the head, which he was unable to procure, of an "encéphale du lion (felis leo)" drawn a fourth of its size, actually substituted that of a *cat;* as some of his malicious colleagues of the Académie des Sciences proved in public session!

[144] "An Analytical Synopsis of the Natural History of Man"—London, 12mo., 1851; pp. xxvii–xliii — being a sort of *rifacimento* of "Interesting Facts connected with the Animal Kingdom; with some remarks on the Unity of our Species" (London, 8vo., 1841; pp. 93–102; indeed, *passim* to p. 206):—which appropriately ends with a saying of "the preacher,

'The black man is God's image like *ourselves* [!] though carved in ebony.'"

Does he really mean what he says? Has he ever thought of the converse of this antiquated Jewish proposition (*Gen.* i. 26)? If so, we part company in conceptions of Creative Power (see "Types," p. 564): and I leave our preacher to translate a French commentary —"'*Dieu créa l'homme selon son image,' et l'homme le lui a bien rendu!*"

[145] *United States Exploring Expedition*, vol. ix., Boston, 4to., 1848.

[146] *Races of Men*, Phil. ed., 1850; pp. 297–8. For the contrary argument, see *Nouveau Discours sur les Révolutions du Globe*, par AJ. DE GR. et P. (translators of Lyell's Principles of Geology), Paris, 1836; ii. pp. 36–47—"De la permanence des Espèces, en d'autres termes, jusqu'à quel point les espèces peuvent-elles être modifiées?"

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men; the circumstances determining these various races of men, as they now, and have existed, are as yet unknown; but they exist, no doubt, and must be physical; regulated by secondary laws, not changing, slowly or suddenly, the existing order of things. The idea of new creations, or of any creation saving that of living matter, is wholly inadmissible. * * * In conclusion: the permanent varieties of men, permanent at least seemingly during the historic period, originate in laws elucidated in part by embryology, by the laws of the unity of organization, in a word, by the great laws of transcendental anatomy."

Between Dr. Knox's embryonic suggestions, and the "development theory" espoused by a previous defender of *unity*,[148] it is not easy to strike the line of demarcation. Certain, however, is it that this brilliant writer, whatever may have been his success, in supplementary editions of his daring book, while repelling assaults upon his accuracy in other fields of speculative science, broke down hopelessly when he treated on mankind, — the authorities cited by him being sufficient testimony that his reading on ethnology was exceedingly limited; and, still more unfortunately, it is patent that through assumption of a single origin for all the races of men, he makes humanity itself an exception to the so-called *law* of organic development which his antecedent pages, with singular ingenuity, had endeavored to establish. His "unity" becomes, in consequence, a *non-sequitur;* whereas (without committing myself to any opinion on a theory which Agassiz[149] pronounced to be "contrary to all the modern results of science"), had the author of "*Vestiges*" sought, in palæontological discoveries and in historical inductions, for evidences that sundry *inferior* races of men preceded, in epoch, the *superior*, I will not say that he could, eleven years ago, have proved a new proposition, of which science, even yet, has only caught some glimmerings; but he would, at all events, have satisfied the requirements of consistency.

Yet another monogenistic point of view has been recently presented,—to myself, however, not very intelligible. "I do not, therefore,"[150] writes Dr. Draper, "contemplate the human race as consist-

[148] *Vestiges of Creation*, New York ed., 1845; "Hypothesis of the Development of the Vegetable and Animal kingdoms;" and, for man, pp. 223–32, compared with p. 177.

[149] *Types of Mankind*, "The natural provinces of the Animal World, and their relation to the different types of Man," p. lxxvi:—republished in substance by Mr. James Heywood, M. P., F. R. S.; as an Appendix to vol. II, of his translation of *Von Bohlen's Genesis*, 1855, and with the usual mistake of "Hottentot *realm*" instead of "Hottentot *fauna*" (p. 278). I have already given a previous instance of this particular oversight in our reviewers (*supra*, note 108); as we proceed, many others will be indicated.

[150] *Human Physiology*, New York, 1856, pp. 565–6.

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ing of varieties, much less of distinct species; but rather as offering numberless representations of the different forms which an ideal type can be made to assume under exposure to different conditions. I believe that that ideal type may still be recognised, even in cases that offer, when compared together, complete discordances; and that, if such an illustration be permissible, it is like a general expression in algebra, which gives rise to different results, according as we assign different values to its quantities; yet, in every one of these results, the original expression exists."

My own aspirations, tempered by dear-bought experience in human speculation on the unknown, no longer rise, nevertheless, above the *historical* stand-point; and, therefore, with regard to the third category, before propounded, viz.: "C. — *Unity* as a moral or metaphysical doctrine," — I feel, with Jefferson, "a decent respect for the opinions of mankind,"[151] and, consequently, place before the reader their humanitarian sentiments rather than my own.

And here it is that the soul-inspiring thoughts of the Humboldts — which truly "puisent leur charme dans la profondeur des sentiments,"[152] basing their high moral value on their touching eloquence — rival St. Paul's eulogia of "love,"[153] in boundless charity towards all mankind. "Without doubt," says Alexander von Humboldt, "there are families of peoples more susceptible of culture, more civilized, more enlightened; but there are none more noble than others. *All are equally made for liberty*, for that *liberty* which, in a state of society but little advanced, appertains only to the individual; but which, among those nations called to the enjoyment of veritable political institutions [under the royal House of Brandenburgh?] is the right of the whole community."[154]

Then "the idea of humanity" is beautifully developed by his brother William — "This is what tends to break down those barriers which prejudices and interested motives of every kind have erected between men, and to cause humanity to be looked upon in its *ensemble*, without distinction of religion, of nation, of color, as one great brotherhood, as a single body, marching towards one and the same goal, the free development of the moral forces. [155] * * * Rooted in the

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[151] *The Declaration of Independence* of the United States of America, A.D. MDCCLXXVI.

[152] *Cosmos*, Fr. ed., I, p. 431.

[153] Not "charity," which is copied from the *caritas* of St. Jerome's *Vulgate;* but the Greek original *ἀγάπη*.—SHARPE'S *New Testament*, from Griesbach's text; pp. 323–4.—1*st Ep. to the Corinthians*, XIII, 1–13.

[154] *Cosmos*, Fr. ed. (supra, note 1); I, p. 430.

[155] Ibid, pp. 430–1; Sabine translates, from the German, "the free development of their moral faculties" (I, p. 356): Otté renders, "the unrestrained development of their physical powers" (I, p. 358)—*sic!* The original text is in W. von H.'s *Kawi-sprache*, III, p. 426.

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depths of human nature, commanded at the same time by its most sublime instincts, this beneficent and fraternal union of the whole species becomes one of the grand ideas which preside over the history of humanity."

Possibly in the future. I cannot find the practice of such "idea" by any nation but old *Okeanic Utopians* in the past. I have resided years in Africa, Europe, and America, months in Asia; and individual experience only enhances, to my mind, the virtue of this law through its *exceptions*.

A more sternly-philosophical explanation of the moral *unity* of mankind is that put forth by Agassiz. It somehow accords more closely with my reason; not less, I am fain to hope, with my social aspirations than the prelauded citation from *Cosmos*.

"We have a right to consider the questions growing out of men's physical relations as merely scientific questions, and to investigate them without reference to either politics or religion.

"There are two distinct questions involved in the subject which we have under discussion,—the Unity of Mankind, and the Diversity of Origin of the Human Races. These are two distinct questions, having almost no connection with each other, but they are constantly confounded as if they were but one. * * *

"Are men, even if the diversity of their origin is established, to be considered as all belonging to one *species*, or are we to conclude that there are several different species among them? The writer has been in this respect strangely misunderstood. Because he has at one time said that mankind constitutes one species, and at another time has said that men did not originate from one common stock, he has been represented as contradicting himself, as stating at one time one thing, and at another time another. He would, therefore, insist upon this distinction, *that the unity of species does not involve a unity of origin*, and that *a diversity of origin does not involve a plurality of species*. Moreover, what we should now consider as the characteristic of species is something very different from what has formerly been so considered. As soon as it was ascertained that animals differ so widely, it was found that what constitutes a species in certain types is something very different from what constitutes a species in other types, and that facts which prove an identity of species in some animals do not prove an identity or plurality in another group. * * *

"The immediate conclusion from these facts, however, is the distinction we have made above, that to acknowledge a unity in mankind, to show that such a unity exists, is not to admit that men have a common origin, nor to grant that such a conclusion may be justly

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derived from such premises. We maintain, therefore, that the unity of mankind does not imply a community of origin for men; we believe, on the contrary, that a higher view of this unity of mankind can be taken than that which is derived from a mere sensual connection, — that we need not search for the highest bond of humanity in a mere animal function, whereby we are most closely related to the brutes. * * *

"Such is the foundation of a unity between men truly worthy of their nature, such is the foundation of those sympathies which will enable them to bestow upon each other, in all parts of the world, the name of brethren, as they are brethren in God, brethren in humanity, though their origin, to say the least, is lost in the darkness of the beginning of the world. * * *

"We maintain, that, like all other organized beings, mankind cannot have originated in single individuals, but must have been created in that numeric harmony which is characteristic of each species; men must have originated *in nations*, as the bees have originated in swarms, and as the different social plants have at first covered the extensive tracts over which they naturally spread. * * *

"We have seen what important, what prominent reasons there are for us to acknowledge the unity of mankind. But this unity does not exclude diversity. Diversity is the complement of unity; for unity does not mean oneness, or singleness, but a plurality in which there are many points of resemblance, of agreement, of identity. This diversity in unity is the fundamental law of nature. It can be traced through all the departments of nature, — in the largest divisions which we acknowledge among natural phenomena, as well as in those which are circumscribed within the most narrow limits. It is even the law of development of the animals belonging to the same species. And this diversity in unity becomes gradually more and more prominent throughout organized beings, as we rise from their lowest to their highest forms. * * *

"Those who contend for the unity of the human race, on the ground of a common descent from a single pair, labor under a strange delusion, when they believe that their argument is favorable to the idea of a moral government of the world, and of the direct intervention of Providence in the development of mankind. Unconsciously, they advocate a greater and more extensive influence in the production of those peculiarities by physical agencies, than by the Deity himself. If their views were true, God had less to do directly with the production of the diversity which exists in nature, in the vegetable as well as in the animal kingdom, and in the human race, than

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climatic conditions, and the diversity of food upon which these beings subsist." [156]

I am wholly at a loss in what category—whether under letter A, or B, or C, or anywhere else—to place the very learned DR. LATHAM (with whose books ethnographers are of course familiar); chiefly because of his well-known habit of commencing a paragraph with an asserted fact, the value of which he generally manages to undo at its close. From the best of his numerous ethnological "catalogues raisonnés," I cull an illustration through which the reader may be able to understand my meaning, even should he fail, perhaps, in precisely comprehending the Doctor's:

"If we now look back upon the ground that has been gone over, we shall find that the evidence of the human family having originated in one particular spot, and having diffused itself from thence to the very extremities of the earth, is by no means conclusive. Still less is it certain that that particular spot has been ascertained. The present writer BELIEVES that it was somewhere in intertropical Asia [a long way, consequently, from Mount Ararat!], and that it was the *single locality of a single* pair [Adam and Eve?]—without, however, professing to have found it. Even this centre [of the author's belief] is only *hypothetical*—near, indeed, to the point which he looks upon as the starting point of the human migration, but by no means identical with it." [!] [157]

Sometimes one finds that a thorough monogenist allows, unconsciously perhaps, an observation to escape him, which shows how impressions, derived from Calvinistic primary tuition, become irreconcilable, in his mature age, to the man of science.

"The data of Genesis," holds Hollard,[158] "commentated upon by a poor science, devoid of criticism and ill-disciplined, led the way for those rare thinkers who, during the middle ages, attempted to understand Nature. Too commonly the commentary bewildered the text. Of all conceptions dating from that period [*a very long one, and not yet ended*], what has had, and must have had, the greatest success, is the doctrine of the chain of beings,—formulated, in these terms, by Father Nieremberg:

"*Nullus hiatus, nulla fractio, nulla dispersio formarum, invicem connexæ sunt velut annulus annulo.* In great favor among the naturalists of 'la renaissance,' this doctrine was professed with *éclat* by Charles Bonnet, at the end of last century; and this philosopher attached to it the idea of a palingenesiac evolution of Nature. It would have

[156] AGASSIZ, "The Diversity of origin of Human Races," *Christian Examiner and Religious Miscellany*, Boston, 1850, XLIX, Art. viii, pp. 110, 113, 118–9, 120, 128, 133, 134.

[157] LATHAM, *Man and his Migrations*, London, 12mo, 1851; p. 248.

[158] *De l'Homme*, Paris, 1853, pp. 13–4.

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greatly scandalized the partisans of the *chain of beings* had somebody taught them that, owing to their conception of Nature, they would one day shake hands with the greatest enemies of the Christian religion. This conception is, in fact, far more within the logic of pantheism than that of *our* (notre) [Genevese] religious dogma.

"To represent the three realms of nature, as if forming but one long series of rings linked one with another, a succession of terms which leave no interval between them—so greatly do the *nuances* melt, and transform themselves, the ones into the others—is, whether one wishes it or repudiates it, whether one knows it or be ignorant of it, to enter into the spirit of systems which substitute, for the thought of a Providential Creation, that of an animate Nature (as Aristotle conceived it),—a Nature which, in its ascenscional effort, would traverse all the imaginable terms of a continuous progression.

"True or false,—and this is neither yet the moment for absolving nor for condemning it—the doctrine, which I have just characterized, must have been heartily welcomed by those naturalists who professed, openly, the autonomy of Nature."

I need not beg Dr. Henry Hollard's pardon for classifying his anthropology under letter A; but some sort of an apology seems due to the reader for my stereotypical inadvertence, through which a learned Protestant Helvetian happens to find his pious sentiments misplaced in that part of this work consecrated to the letter C.

A third conception may be gathered from passages of the vast work of Gustave Klemm.[159] My excellent friend, Dr. L. A. Gosse, of Geneva,[160] pointed them out to me during our joint studies at the Muséum d'Histoire Naturelle:

"It is tolerably indifferent whether mankind come down from one pair or from many pairs; whether some first parents were separately created in America, in Africa, in Asia, and in Europe; or whether the population of all these regions draws its origin from a single couple: but what is certain is, that there have existed on this earth *passive* races prior to the *active* races, and that these primitive races had multiplied considerably before the apparition of the latter." He enlarges upon the distinctions between such active and passive

[159] *Allegemeine Cultur-Geschichte der Menschheit;* 1843–52, Leipzig, 8vo., 10 vols.; I. pp. 196, 210.

[160] Honorably and widely known in medical sciences, Dr. Gosse, whilst favoring me, at Paris, 1854–5, with indices to knowledge, as well as infinite other proofs of his generous heart, published his erudite *Essai sur les Déformations Artificielles du Crâne.* Our collaborator, Dr. J. Aitken Meigs, having undertaken its analysis, I gladly leave to him a subject on which the nature of my studies excludes valid opinion.

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races; deeming these last to have been the darker in complexion, and inferior in conformation, and in their rapidity of growth to have resembled the precocity of the female sex. Hence, Klemm concludes that — "In studying the manners, usages, monuments, industry, organization, traditions, creeds, and history of different peoples, I have become induced to admit, that all humanity which forms a whole, like man himself, is separated into *two halves*, corresponding with each other, *one active* and *one passive*, the one *masculine* and the other *feminine*."

This theory, novel to most readers of English, may, like other theories, be true or false, according to the sense in which the words *active* and *passive*, applied to ethnic peculiarities, are comprehended by those who employ them. To me their application is not clear, unless qualified by stronger adjectives; implying the recognition of *superior* and of *inferior* races: and, in such sense, M. d'Eichthal's conception of the difference between the White and the Negro types is curious and interesting:[161]

"Thus, gentlemen, the debate, although concentrated upon the African question, conducts us to this first conclusion, established, explicitly or implicitly, by the defenders themselves of the two extreme opinions, viz: *that the African negro race has attained its present civilization through the influence of the white race, notably from the Arabs: that, in order to raise itself to a higher civilization, it has need of a new initiation, imparted by this same race: that, to the white race, consequently, belongs the initiative in the development of a common civilization.* It is very remarkable that Ritter, at the end of his work on the Geography of Africa, casting what he calls *a retrospective glance* over the history of this continent, arrives precisely at the same conclusion; which he expresses furthermore in terms of high philosophical bearing:—'Must it be,' asks the learned geographer, 'that civilization is to be brought from the exterior and inoculated, so to say, upon the inhabitants of the *Soodàn* (Negro-land), because, to judge according to the entire development of history, the others *are called upon to give*, and these *to receive?*'

"Such is, in fact, the *abstract* expression of the normal relation between the black race and the white race; the one is *passive*, the other *active* in respect to it. * * * '*The black shows himself to us as civilizable* [domesticable?], *but without the initiative faculty in point of civilization.*'" * * * "Thus, in the most intimate of their associations [sexual intercourse between white males and black females], these two races preserve the character which we have recognized in

[161] *Bulletin de la Société Ethnologique de Paris*, Tome 1re, Année 1847; pp. 69–70, 77, 205, 232–4, 239–241.

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the *ensemble* of their destinies. The white race is *Man;* the black race is *Woman.* No formula can so well express the reciprocal characteristics and the law of association between the two races. It suffices moreover to explain how one of these races has been able to be *initiator*, the other *initiated;* the one *active*, and the other *passive;* without its following that this relationship carries with it, as has been maintained, at least for the future, on the one side superiority, on the other inferiority."

To the debate itself I must refer for a controversy conducted on all sides with rare ability and scientific decorum; my own views finding expression, generally, in the ethnological arguments of M. Courtet de l'Isle; to be cited hereinafter. Enough has now been set forth on the *unity* side of the question; and the reader can henceforward classify any less important monogenists than those herein enumerated, into category A, B, or C, as best suits his appreciation of their merits.

Inter alia, the ultimate philosophical results of the celebrated Academician and Professor, FLOURENS, whose microscopic examination of the human skin in different races, supposed by complacent clergymen to have established an infallible recipe for proving the lineal descent of all mankind from "Adam and Eve," has led them, in England and America, almost to account him one of themselves. An English version, however literal, fails to do justice to the piety and logic of the French original.

"All these necessary conditions, so admirably combined and prepared for the precise moment when *life* was to appear, prove God, and one sole God. They could not, seemingly, have been two. If they had been two, they would not have so well understood each other—*ils ne se seraient pas si bien entendus.*"[162]

Hitherto, the weight of authorities quoted has been altogether on the affirmative side: the polygenists, as yet, have scarcely had a voice on the negative. To them the next section will be devoted: *audi alteram partem;* commencing with Bérard,[163] Professor of Physiology,—"I cannot suppose that a mind disengaged from prejudices, and from hinderances which certain extra-scientific considerations might interpose to liberty of thought, can entertain doubts upon the primitive plurality of human types."

To the many diversitarian authorities whose language has been cited in *Types of Mankind*, coupled with the variety of polygenistic facts accumulated in that work and the present, there would seem little reason to add corroborative testimony, were it not for the sake

[162] *De la Longevité Humaine*, Paris, 12mo., 1855, p. 238.

[163] *Cours de Physiologie*, Paris, 8vo., 1850, I, p. 463.

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of showing how the advocates of this new school are rising up on every side, as if in derision of theocratical impediments. I will, therefore, merely select two whose conclusions are arrived at by reasoning from different starting-points. Dr. PROSPER LUCAS shall be the first, as one who has studied humanity closest in its generative laws.[164]

"The psychological diversity of races is, as we have said, as thoroughly demonstrated as their physiological; and this diversity bears upon all the forms of human dynamism. All the races, in a word, although partaking of the attributes of one and the same 'species,' present them under a form and at a degree which are properties of each of them: each one of them has its own type of sensoriety, its type of character, its type of intelligence, its type of activity. Now, there is not a single one in which generation does not delevope sudden anomalies of the natural, and wherein we cannot observe, as in the physical form of its existence, different and spontaneous transitions of the moral type of one race into the moral type of another."

M. BLANCHARD is our second, no less than the expression of a duplex authority,—his own, and DR. DUMOUTIER'S; whose anthropological experiences were derived, as shown by his splendid Atlas,[165] from accurate attention to the various types of men he beheld while circumnavigating the globe with Dumont d'Urville, and whose polygenistic opinions were frequently elicited at the meetings of the *Société Ethnologique de Paris.*[166]

"Speaking for ourselves, it is not sufficient to admit that there are, either a certain number of races, or several distinct species; it becoming necessary to ascend still higher. In order that the question should be clearly posited, we will say at once that, to our eyes, there exist different species of men; that these species, very proximate to each other, form a natural genus; and that these species were created in the very countries in which we find them at present. *En résumé*, the creation of mankind must have taken place upon an infinitude of points on the globe, and not upon a single point whence they have spread themselves, little by little, over all the surface of the earth. * * *

"Through all the reasons that we have just rapidly set forth, we have acquired the conviction, that the human genus is a veritable *genus*, in the sense attached to this word by naturalists, and that this genus comprises several *species.*

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[164] *Hérédité Naturelle*, i. pp. 160–1.

[165] *Voyage au Pôle Sud, Anthropologie*, Atlas, fol., Paris, 1846; cited in *Types of Mankind*, pp. 438, &c.

[166] *Bulletins*, 1846–7.

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"These species must have been necessarily created each one in the country in which it was destined to perpetuate itself; and hence then, we must admit, at the origin, a considerable number of *foci* (*souches*). * * *

"We think, with DUGÈS (*Traité de Physiologie*), that mankind comprehends a great number of species; but, by what signs these species can be defined in an indubitable manner, no one, in the present state [of science], can tell, if he abstains from comparing only the most dissimilar." [167]

But, by way of parenthesis, as explanatory of a passing comment on "Vestiges of Creation," and of a remark by Klemm (*supra*, pp. 454–5), that *inferior* human races seem in antiquity to have preceded the *superior*, there are data which here may find place.

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[167] BLANCHARD, *Voyage au Pôle Sud, corvettes l'Astrolabe et la Zélée*, 1837–40,—*Anthropologie*, par M. le Docteur DUMOUTIER, Paris, 1854, pp. 19, 45, 46.

In corroboration of what a far-travelled Doctor, M. DUMOUTIER, says above, and elsewhere, in regard to the creation of a distinct species of man for each zoological country; no less than to fortify the positions sustained by my collaborator DR. NOTT (*ante*, Chapter IV, p. 547), as to the non-acclimation of races, and the non-cosmopolitism of man; I subjoin an extract from a work by our mutual friend DR. BOUDIN, which Dr. Nott had mislaid when his MS. was sent to the printer:

"For a long time there has been ascribed to man the faculty of adapting himself to every climate, and the power of establishing his residence upon all points of the globe. Such credence, reposing upon no kind of experimental basis whatever, could merely constitute but a simple hypothesis; against which, now-a-days, facts, as authentic as numerous, protest. Perhaps the partisans of cosmopolitism had been in too great a hurry to lend to a fraction of humanity, represented, by what it has been agreed upon to call, the 'Caucasian' race, that which may very well not belong save to the *ensemble* of mankind;—perhaps, too, they had not sufficiently discriminated the laboring and agricultural man, from the mere transitory excursionist." Thus, in order to prove his position, Boudin cites, amongst other examples,—how, in Egypt, the austral negroes are, and the Caucasian Memlooks were, unable to raise up even a third generation,—how, in Corsica, French families vanish beneath Italian surnames. Where are the descendants of Romans, or Vandals, or Greeks, in Africa? In modern Arabia (1830), after Mohammed Ali had got clear of the Morea-war, 18,000 Arnaoots (Albanians) were soon reduced to some 400 men. At Gibraltar (1817), a negro regiment was almost annihilated by consumption. In 1841, during three weeks on the Niger, 130 Europeans out of 145 caught African fever, and 40 succumbed; whilst, out of 158 negro sailors, only 11 were affected, and none died. In 1809, the British Walchereen expedition failed, in the Netherlands, through one kind of marsh fever; about the same period that, at St. Domingo, 20 French Generals, and 15,000 rank and file, died in two months by another malarial disease. Of 30,000 to 32,000 Frenchmen, but some 8000 survived exposure to that Antillian island; while the Dominicanized African negro, Toussaint l'Ouverture, re-transported to Europe, was perishing from the chill of his prison in France. (*Pathologie comparée*, Paris, 1849, pp. 1–4).

Again, "already the facts acquired by science establish, in a manner irrevocable, that the diverse races, which constitute the great family of humanity, obey especial laws, under the triple aspect of birth, mortality, and pathological aptitudes." France uses negro soldiers at Guyana and Senegal; England employs, like the Romans of old, the *natives* of each colony, to perform arduous military works — confining (*cæteris paribus*) for all hard labor, tropical soldiers to the Tropics, and extra-tropically-born soldiery to servile duty,

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PART II.

GREAT and multifarious are the changes in palæontology, as in other sciences, since Georges Cuvier wrote:

"That which astounds is, that amongst all these Mammifers, of which the greater part possess now-a-days their congeners in hot countries, there has not been a single Quadrumane; that there has not been gathered a single bone, a single tooth of a *Monkey*, were they but some bones or some teeth of monkeys, of now-lost species."[168]

Barely five years after the decease, in 1832, of this grand naturalist, *fossil Simiæ* turned up, during 1837, in France and in Hindostàn!

In eighteen subsequent years of exploration, many more have been discovered; enumerated in the subjoined works[169] as genus *Hapale*, 2 species; *Callithrix primævus Protopithecus*, 2; *Cebus*, 1; found in South America:—*Macacus eocœnus*, *Pithecus antiquus*, 2 species, &c.; in England, France, or in the Sub-Himalayan range. Wagner had previously indicated the existence of other fossil monkeys in Greece; but early in the present year, M. Gaudry reports to the Académie des Sciences, his having exhumed, at the "gîte fossilifère de Pikermi,"[170] specimens of *Mesopithecus major* and *Mesopithecus pentelicus;* mixed up with remains of hyæna, mastodon, rhinoceros, hog, hippotherium, bos-marathonicus, giraffe, and probably of birds.

Geologists can now determine the relative epochas of each specimen, according to the formations in which the several genera of such fossil monkeys appear; but De Blainville states that, while these of Brazil are more recent, being met with in the diluvium of caverns,—"those of India and Europe lie in a medium tertiary fresh-water deposit, and consequently are of an age long anterior to

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only where the climate accords with that of their race and birth-place. At Sierra Leone, the mortality of negroes, compared to that of whites, is as 30 to 483; *i. e.* as 1 against 16! (*Physiologie et Pathologie comparées des Races humaines*, pp. 1–7).

[168] *Discours sur les Révolutions de la surface du Globe*, Paris, 1830, 6th ed., p. 351.

[169] MARCEL DE SERRES, *Essai sur les Cavernes à Ossements*, Paris, 8vo, 3d ed., 1838; pp. 226–7:—DE BLAINVILLE, *Ostéographie*, "Mammifères-Primates," Paris, 4to, 1841; pp. 49–66:—D'ORBIGNY, *Dict. Univ. d'Hist. Nat.;* Paris, 1847; X, pp 669–70, "Quadrumanes fossiles:"—HECK, *Iconographic Encyclopedia*, transl. Baird, New York, 1851; II, pp. 492–8:—GERVAIS, *Trois règnes de la Nature*, Mammifères, Ie partie, Paris, 1854; pp. 12–13.

[170] Letter to M. Élie de Beaumont; *Athenæum Français*, 1 Mars, 1856; pp. 167.

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the last catastrophe, which is supposed to have given the present shape to our seas and our continents."

This is confirmed by a curious observation of Marcel de Serres,[171] that while, as yet, monkeys have been found "only on the ancient continent in the *fossil* state, it is uniquely in the *humatile* state they have been recognized on the new."

It is, therefore, no longer contestable, that *fossil monkeys* exist, and in abundance. Other genera, without question, will be discovered in the ratio that portions of the earth, and by far the most extensive, become accessible to the geologist's hammer. Those barbarous regions which living anthropoid monkeys now inhabit—viz.: Guinea, Congo, and Loango, where the Chimpanzee (*Troglodytes niger*); the Gaboon river-lands, where the *Gorilla Gina;* and the forests of Borneo and Sumatra, where two, or even three [*supra*, AGASSIZS' LETTER], species of the Orang-utan (*Satyrus rufus*, and *Satyrus bicolor*); are found[172]—being at present wholly inaccessible to geological investigation, it is premature to affirm or deny the existence of such anthropomorphous grades, as the above, between the "genus Homo" or *bimanes*, and those lower genera of *quadrumanes* already known to palæontology, in the fossil state. Such a discovery would fortify, although its absence does not affect, the propositions I am about to submit.

Leaving aside De Lamark's much-abused development-theory,[173] all naturalists agree that, whether in the incommensurable cycles of geological time anterior to our planet's present condition, or during the chronologically-indefinable period that mankind have been its later occupants, there is a manifest *progression* of organism upwards from the Radiata to the Articulata, from these to the Mollusca, and again from these last to the Vertebrata.[174] At the summit of vertebrated animals, after ascending once more through the Fishes, the Reptiles, the Birds, and the Mammifers, stands *Man*, himself the highest of the mammalian division—"sole representative of his genus" if Prof. Owen pleases, but composed, notwithstanding, of many distinct *types*, each subdivisible into many *races*.

Now, whether we look up or down the tableau of living nature, or drag out of the rocky bowels of our earth the whole series of fossil animals known to palæontology, nearest to mankind, among mam-

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[171] *Cosmogonie de Moïse comparées aux faits géologiques*, Paris, 8vo, 2d ed., 1841; I, pp. 162–7.

[172] CHENU, *Encyclopédie d'Histoire Naturelle*, vol. "Quadrumanes," *Primates;* pp. 30–52.

[173] Generously explained by HALDEMAN, *Recent Freshwater Mollusca* (supra), pp. 6–8.

[174] See the *Règne Animal de M. le Baron Cuvier, disposé en Tableaux méthodiques par* I. ACHILLE COMTE, *Paris*, fol. 1840; 1st Plate, "Introduction."

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malia, in every feature of organization, spring up the *Monkeys* in bold relief; as Man's closest sequence in the descending scale of zoological *gradation;* and, likewise, so far as science yet has ascertained, as one of Man's immediate precursors in the ascending line of our planet's chronology. Each of these two points, however, requires some elucidation, in order to eschew deductions that are not mine. For the first, one reference will explain the view I concur in; it is Gervais's.[175]

"We know nothing well except through comparison, and, in order to compare objects correctly, one must begin by placing them near together. This is not to say that Man is a Monkey, and still less that a Monkey is a Man, even degraded; because, upon studying with care the one and the other, it will be recognized without difficulty that if Man resembles the highest animals [the Primates], through the totality of his organization, he differs from them above all in the details; and that, even more endowed than the greater number of these in almost every respect, he surpasses them essentially by the very perfection of his structure. His brain, as well as his intelligence, assigns him a rank apart. He is indeed, as Ovid says,

Sanctius his animal, mentisque capacius altæ.

It is well known, on the other hand, that, to Linnæus and his contemporaries, the limits of genus were much less narrowed than they are for naturalists of our day. The generic union of Man and of other [*sic*] Monkeys would be, therefore, at the present state of science, entirely contrary to the rules of classification. * * * "(Monkeys) are easily recognized by their organization, of which the principal traits accord with those that the human genus displays in such an elevated degree of perfection. Their brain and their other deeply-placed organs; their exterior appearance, and, especially, the form of their head; the position and number of their teats; their thumbs at the superior members, more frequently than not opposable to the other fingers; their station approaching more and more the vertical, but without ever reaching it completely; and a certain community of intellectual aptitudes; everything, in these animals, announces an incontestable resemblance with Man, and a superiority as regards other quadrupeds. Albeit, this similitude diminishes in proportion as one descends through the series of genera that compose the family of Monkeys; and, whilst ever preserving the fundamental traits of the group to which they belong, the lowest species [the *Ouistites*, for instance] show by their intelligence as much as by their brain, in their

[175] *Hist. Nat. des Mammifères*, pp. 49, and 7–8.

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shapes as well as in the structure of their principal organs, an evident inferiority, if one compares them with the *Primates*, and beyond all with Man."

Science, therefore, at the present hour, ceases to go back to the long-exploded and (considering the epoch of its advocates) over-satirized notions of Monboddo, Rousseau, or Moscati.[176] Such historical theory only continues to afford *pabulum* for homily-writers, who, groping still amidst Auguste Comte's[177] sub-metaphysical strata, imagine, not perhaps unreasonably, that some of their readers have learned nothing since the XVIIIth century. Even in the time of Voltaire — to whom men merely seemed to be so many monkeys without tails—of the apparently tail-less quadrumana (Orang, Chimpanzee, and Gorilla), but one species (except, of course, Tyson's Chimpanzee, 1698,[178] and Buffon's, 1740) was known to France; and that one, the Orang-utan,—belonging to the prince of Orange, 1776 — too imperfectly for him to perceive, between the "lord of creation" and his caricature, a still closer analogy: or, again, for the immortal bugbear of pseudo-pietists to comprehend that, if the absence of such exterior appendage in the above three primates does not the more constitute a true "monkey," neither does its presence, in the several authentic examples cited by Lucas,[179] the less constitute a true "man." So that, while man, as "the sole representative of his genus," possesses no tail, there are *individual* instances that bring the case much nearer home than the interesting fact for which the latest English partisan of successive transformations[180] encountered obloquy; viz.: that "the bones of a caudal extremity exist, in an undeveloped state, in the *os coccygis* of the human subject." Why, if such "*deviations*" as that melancholy case of the "porcupine family," or those worn-out specimens of "sexidigital individuals,"

[176] ZIMMERMAN, *Zool. géog.*, p. 194.

[177] *Cours de Philosophie Positive*, Paris, 1830; I, pp. 3–5.

[178] MARTIN, *Man and Monkeys*, London, 8vo., 1841; pp. 379 and 402.

[179] *Hérédité Naturelle*, I, pp. 319–20:—referring to SERRES, and to Is. GEOF. SAINT HILAIRE. "Le développement congénial de cet appendice (a *tail*) se lie en effet au rapport très-constant, qu'il (SERRES) a démontré, entre l'évolution de la moëlle épinière et celle de la queue. La moelle épinière se prolonge, dans l'origine, jusqu'à l'extrémité du canal vertébral, chez tous les animaux de la classe où il existe, et tous, à cette époque de la vie embryonaire, se trouvent ainsi munis d'une queue plus ou moins longue selon qu'ultérieurement, et d'après les especès, le prolongement de la moelle se maintient ou se retire, l'axe vertébral est ou n'est pas pourvu d'un appendice caudal. * * * Et il arrive ainsi quelquefois (says I. G. ST. HILAIRE) que la moëlle épinière, conservant sa première disposition, s'étende encore, chez l'homme, au moment de la naissance, jusqu'à l'extrémité du coccyx. Dans ce cas, la colonne vertébrale reste terminée par une queue."

[180] *Vestiges of Creation*, 1st New York edition, 12mo, p. 148. In speaking of "apparently tail-less monkeys," it may be well to refer to the skeletons of Orang-satyrus, Troglodytes niger, and Gorilla Gina, in GERVAIS, *op. cit.*, pp. 14, 26, 32.

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have been paraded by every monogenist, from Zimmerman[181] to Prichard,[182] in proof of how *a new race of men* might, according to them, originate — why, I repeat, do they not observe consistency of argument, whilst always violating their own law of "species"—*i. e.*, permanency of normal type—and allow that a Parisian saddler,[183] or the late Mr. Barber of Inverness,[184] might and ought to have procreated entire generations of new human "species" with tails? Partial is the unity-school to natural analogies, accusing polygenists of tendency to disregard them. Our "chart of Monkeys," further on, will at least show that I am not obnoxious to this grave charge.

In the interim, there are but two living *savans*, that I am aware of —the one a naturalist and courageous voyager;[185] the other, if not exactly an archæologist, a much more famous champion of orthodoxy,[186] —who believe in the existence, past or present, of whole nations decorated with tails. The former, when at Bahia, heard, from the veracious lips of imported Haoussa negroes, of the "*Niams-Niams*,[187] ou hommes à queue;" who still whisk their tails in Africa, about thirteen days' journey from Kano (not far from that Island

[181] *Op. cit.*, p. 172.

[182] *Researches into the Physical History of Man*, 1st edition, 1813; pp. 72–5:—In the 2d edition (*op. cit.*, 1826, I, pp. 204–7), Prichard found out that the "porcupine family" was flourishing in its 3d generation!

[183] Lucas, *op. cit.*, I, pp. 137–8, 320–2. Instances of *homines caudati:* the celebrated corsair Cruvillier de la Cioutat, of a negro named Mohammed, of a French officer, of M. de Barsabar and his sister, and, lastly, of an attorney at Aix, surnamed Bérard, whose tail had (as in the case Schenckii *Monstror. hist. memorab.*, II, 34) the curly shape of a pig's.

[184] Compare Monboddo, *Of the Origin and Progress of Language*, Edinburgh, 8vo, 2d ed., 1774; I, pp. 258–69, for the men with long tails at Nicobar! But the following is less apochryphal: "And I could produce legal evidence, by witnesses yet living, of a man in Inverness, one *Barber*, a teacher of mathematics, who had a tail, about half a foot long, which he carefully concealed during his life; but was discovered after his death, which happened about twenty years ago." (P. 262, note.)

[185] De Castelnau, in *Bulletin de la Société de Géographie*, Paris, Juillet, 1851, p. 26. Camels, it is well known, were not introduced into Africa until Ptolemaic times (*Types of Mankind*, pp. 254, 511–13, 729). Those seen by M. de Castelnau's narrator, close by "les hommes à queue," must have been stray-aways from Tuarik, Foolah, or Arab encampments; because no *Negro* race has ever perceived the value of this animal, nor adopted its use, although for centuries employed against them by their surrounding oppressors; thus allowing a stupid repugnance to testify to their own intellectual inferiority (Conferre d'Eichthal, *Hist. et Origine des Foulahs*, Paris, 8vo., 1841; pp. 259–60, note).

[186] Paravey, *op. cit.*, 1852, pp. 34, 501.

[187] These "Niams-Niams" are fabulous (like the Yahoo enemies of the virtuous Houyhnhnms) African cannibals, by different Negro tribes "severally called *Remrem*, *Lenlem*, *Denidem*, *Yemyem*, or *N'yumn'um*" (W. Desborough Cooley, *Negro-land of the Arabs*, 1841; pp. 112, 135: Gliddon, *Otia Ægyptiaca*, London, 1849; p. 125, note). Since this was written, I hear that M. Tremaux, the latest explorer of the upper Nile (with Brun-Rollet, a Sardinian merchant at Khartoom), has, still more recently, exploded the notion of "*les hommes à queue*" in that region also.

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visited by Mr. Gulliver, in his "Voyage to the Houyhnhnms"); where our naturalist's informants had also beheld "wild camels." The latter, senior among "MM. les Membres de l'Institut," as well as free from any sins but Sinology, happening to meet in Paris with a negro of singular conformation, compares him with perfectly authentic block-printed *plates* of ancient foreign nations in Mongolia, known to Chinese encyclopædists before an *Encyclopædia*, or even a geographical dictionary, had been struck off in Europe. A copy of this work, the *Sau Tsai Too Hwyy*, is in the possession of my valued colleague M. Pauthier, the historian of China; with whom I have enjoyed a laugh over its numerous designs of *men with tails*, while he read me the text; which, being in Chinese ideographics, does not strictly fall within Voltaire's malicious definition—"Les dictionnaires géographiques ne sont que des erreurs par ordre alphabétique." Mr. Birch was so kind, subsequently, as to show me another copy in the library of the British Museum.[188]

For the second proposition, viz: that, in palæontology, monkeys appear to be the forerunners of man, a more serious tone of analysis must be adopted.

We have seen how Cuvier, at his demise in 1832, did not anticipate the discovery, made five years later, of *fossil* monkeys; which has since established, in several gradations of genera and of epoch, a link between extinct *quadrumanes* and living *bimanes*. Inasmuch as that great Naturalist, correct in his deductions from the data known to him, committed an error, as it turned out afterwards, about fossil

[188] This is one of the Sinic authorities (as quoted, that is, by De Guignes) just referred to by an eloquent divine, at Hope Chapel, New York, in his 2d lecture on "The Ethnology of America," wherein he proves that our American Indians are only a colony, "450 and 500" A.D., of Hindostanic Budhists, since run wild! (*New York Herald*, Feb. 6, 1857.)

In order to remove at once any latent suspicion that, at the present day, erudition is necessary to know every piece of nonsense that has been written on the ante-Columbian colonization of America from any part of the world—Chinese, Tartar, Japanese, Israelitish, Norwegian, Irish, Welsh, Gaulish, Hispanian, Polish, Polynesian, Phœnician, Atalantic, &c., &c.—let me refer critics, who may be acquainted only with French, to "Recherches sur les Antiquités de l'Amérique du Nord et de l'Amérique du Sud, et sur la population primitive de ces deux continents, par M. D. B. Warden," formerly the very learned U. S. Consul at Paris,— in the folio *Antiquités Mexicaines* (see Pulszky's Chap. II, p. 183, *ante*). Humboldt had written long previously — "It cannot be doubted, that the greater part of the nations of America belong to a race of men, who, isolated ever since the infancy of the world from the rest of mankind [and how, during such infancy, could the fathers of American Indians come here from Mount Ararat?], exhibit, in the natural diversity of language, in their features, and the conformation of their skull, incontestable proofs of an early and complete separation." (*Researches concerning the Institutions and Monuments of the ancient Inhabitants of America*, London, 1814, I. pp. 249–50.) Through the 3d Lecture (*New York Herald*, Feb. 9, 1857), I perceive how, even at this date, it is not yet known, in New York, that the comicalities about the god "Votan" *alias* "Ballam," are merely the pious inventions of an illiterate Jesuit priest! On whom hereafter.

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monkeys, may he not have also made another in regard to fossil man? His convictions were:[189]

"There is not either any man [among these fossil-bones]: all the bones of our species that have been collected with those of which we have spoken found themselves therein accidentally, and their number is moreover exceedingly small; which would not assuredly have been the case if men had made establishments in the countries inhabited by these animals. Where then at that time was mankind?"

We cannot answer decisively, as yet—"with those monkeys, to be sure, whose fossil and humatile remains, unrevealed to Cuvier, have been since discovered;" but this much we can do,—show that while, on the one hand, later researches have vastly extended Cuvier's narrow estimate of the antiquity of mankind upon earth; on the other, the *gradations* of epoch and of species, from the tertiary deposits where *fossil simiæ* are found in Europe, upwards to recent formations in which, according to a preceding remark of Marcel de Serres, those *humatile* monkeys have turned up in America, there is a gradual progression of "species" that brings these last nearly to specific identity with some of those *simiæ platyrhinæ* living in Brazilian forests at the present day.

We can do more. After obtaining an almost unbroken chain of osteological samples, from living species of *callithrix* and *pithecus* in South America, back to Lund's *callithrix primævus* and *protopithicus* of humatile Brazilian deposits, and thence upwards through the various extinct genera of *simiæ catarrhinæ* found in a true fossil state in Europe and Hindostàn; we are enabled, upon turning round and looking at the ascending scale of relative antiquity in human remains,—from the Egyptian pyramid to the Belgian and Austrian bone-caverns, from Scandinavian and Celtic barrows to the vestiges of man's industry extant in French diluvial drift, and from the old Caribæan semi-fossilized skeletons of Guadaloupe, coupled with the Brazilian semi-fossilized crania (Lund)[190] as well as with the semi-fossilized human jaws of Florida (Agassiz, in "Types"),—to establish, for man's antiquity, two points, parallel in some degree with what has been done for that of the *simiæ*, viz: 1st, That the existence of mankind on earth is carried back at least to the *humatile* stage of osseous antiquity on both old and new continents; and 2d, that, by strange and significant coincidence, like the genera *callithrix* and *pithecus*, the living species and the dead, in Monkeys, all humatile specimens of Man in America correspond, in *race*, with the same

[189] *Discours sur les Révolutions*, pp. 351–2, and 131–9.

[190] "Notice sur les ossements humaines fossiles, trouvés dans une Caverne du Brésil"—*Bulletin de la Soc. R. des Antiquaires du Nord*, 1845–9, pp. 49–77.

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aboriginal Indian group still living on this continent. Such is what will be attempted in the following pages.

But, before proceeding, we must rid ourselves of some preconceived encumbrances about *chronology;* because "there are persons in America * * *; persons whose intellects or fancies are employed in the contemplation of complicated and obscure theories of human origin, existence, and development—denying the very CHRONOLOGY *which binds man to God*, and *links* communities together by *indissoluble moral* obligations." "Pretty considerable" performances for Mr. Schoolcraft's "chronology"![191]

Our national Didymus and ΧΑΛΚΕΝΤΕΡΟΣ—he, too, *of brazen bowels*, in literary fabrication—believing that "the heavens and the earth" were created exactly at six o'clock on Sunday morning (1st day), in the month of September, at the equinox of the year B. C. 4004,[192] would be much distressed if he knew what his only patronizer's (Chevalier Bunsen's) opinion is, viz.—"That a concurrence of facts and of traditions demands, for the Noachian period, about ten millennia before our era; and, for the beginning of our race, another ten thousand years, or very little more."[193]

The startling era claimed, in 1845, by Bunsen, for Egypt's first Pharaoh, MENES, B. C. 3643, sinks into absolute insignificance before the 20,000 years now insisted upon by him for man's terrestrial existence. Palæontologists of the Mortonian school will cheerfully accept Bunsen's chronological extension, notwithstanding their inability to comprehend the process by which the learned German obtains that definite cipher, or the reason why the human period should not be prolonged a few myriads of years more. Brought down nearer to our generation it cannot, without violating all reasonable induction regarding the ante-monumental state of Egypt;[194] no less than from the remote era assigned by Prof. Agassiz[195] to the conglomerate, brought to his cabinet from Florida, inclosing numan "jaws with perfect teeth, and portions of a foot."

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[191] SCHOOLCRAFT, *Indian Tribes of the United States*, Philadelphia, elephant 4to, 1854—"Ethnographical researches concerning the Red Man in America;" Fourth Report, p. ix.

[192] REV. DR. LIGHTFOOT, *Harmony of the Foure Evangelistes*, London, 1644; Part I, last page. 1st, Compare BASNAGE (*Hist. and Religion of the Jews*, pp. 107–8), on the disputations between the Caraïtes (*literalists*) and the Rabbinists (*traditionists*), whether the world was created in March or in September: 2d,—if it be desired to ascertain on what grounds the rabbis make the 1*st Sept.* the day of creation, the solution is R. Jacoub's *Baal Haturim* (printed at Venice, 1540); who proves it through the Kabbala on the first word of Genesis, BeReSHITh—because, on transposing letters, *Aleph* is equivalent to "first," and *be tisri* means "in September"! (RICHARD SIMON, *op. cit.*, I, p. 382.)

[193] *Outlines of the Philosophy of History*, London, 1854; II, p. 12.

[194] *Types of Mankind*, pp. 687–9.

[195] *Op. cit.*, pp. 352–3.

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With respect to Nilotic alluvials, my suggestion of geological researches[196] has been wrought out, since 1851, by an old Egyptian colleague, Hikekyan-Bey, one of Seid Pasha's civil engineers, with effective government aid, at Heliopolis and Memphis, under direction of Mr. Leonard Horner, of the Royal Society,[197] which placed a liberal grant of money at this gentleman's disposal. Father-in-law of Sir Charles Lyell, and father of the accomplished ladies who translated Lepsius's *Briefe aus Ægypten, Æthiopien*, &c.,[198] no one could be more qualified for the undertaking,—particulars concerning which may be also read in Brugsch,[199] who visited Metraheni while the works and surveys were going on. The royal names dis-interred are given by him; and they belong to the XIXth–XXth dynasties, or the 15th–12th century B. C.; but the depth, beneath the surface, at which they were found, indicates a much more remote antiquity for the accumulation of soil below them. During my recent sojourn in London, Mr. Horner, among other courtesies, was pleased to show me the interesting specimens collected, and to favor me with an insight into the probable results. These were to appear in a later number of the Royal Society's *Transactions*. They will establish an unexpected antiquity for the Nile's deposits; especially as Mr. Horner, with Lepsius and all of us, takes the XIIth Dynasty at about 2300 before Christ; which, as he correctly observes, "according to the *marginal* chronology printed in the latest editions of our Bibles, is about 300 years before the death of Noah."[200]

Again, to the ante-Abrahamic age of the same XIIth dynasty, more than 4000 years backwards from our own day, belong those eighteen hieroglyphical inscriptions, recording, upon the rocks near Samneh, for a period of about fifty years, "the height to which the river rose in the several years of which they bear the date. Independently of the novelty of these inscriptions, which are very short, they possess great value in enabling us to compare the ancient elevations of the waters of the Nile with those of our time; for the oldest of these records dates back to a period of 2200 years before the Christian era. Thus, the measurements I have made with the greatest care, and which at this place were taken with comparative facility, have given the remarkable result, that the average rise of the Nile,

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[196] *Otia Ægyptiaca*, 1849, pp. 67–8.

[197] *Philosophical Transactions of the Royal Society*, vol. cxlv, Part I, London, 4to, 1855; pp. 105–38.

[198] *Letters from Egypt*, &c.—revised by the author; and translated by LEONORA and JOANNA B. HORNER; London, 12mo, 1853.

[199] *Reiseberichte aus Ægypten* (1853–4), Leipzig, 8vo, 1855; pp. 62–79.

[200] "Mr. Horner on the Alluvial Land of Egypt," *op. cit.*, p. 123.

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4000 years ago, was 7 *mêtres*, 30 *cent.* (or about 24 English feet) higher than it is at the present day." * * * "It explains a fact that had previously surprised me, viz: that in all the valley of Nubia, the level of the soil upon both shores, although it consists entirely of alluvium deposited by the Nile, is much more elevated than at the highest level of the river in the best year of modern inundation."[201]

I have a distinct recollection of localities in Lower Nubia, — explored with Mr. A. C. Harris during our shooting excursions as far as Wàdee Halfa (2d cataract), in 1839–40 — where the alluvium, deposited by the Nile anciently, upon the *rock*, was at great distance from, and at a higher level than, inundations at this day: but the phenomenon merely excited surprise; nor, until Chev. Lepsius discovered the inscriptions at Samneh, was an unaccountable circumstance, now of great value in geology as well as chronology, either important or explicable. Eighteen years later, it helps to mark degrees of time on Nature's calendar; and, conjointly with the hieroglyphs of Manetho's XIIth dynasty, cut at Samneh, to fix a date for the ante-Noachian existence of civilized humanity upon earth.

Adjacent to these inscriptions stand the coetaneous fortifications of Samneh, built with great military skill and on an immense scale, by these Pharaohs of the XIIth dynasty, as their frontier bulwark of the south against the attacks of Nubian hordes. M. de Vogüé, a competent judge, has re-explored the localities;[202] confirming in every respect the anterior discovery of Chev. Lepsius.

Geological investigation of Egypt, therefore, begins to furnish abundant elbow-room for Plato's long disregarded assertion, put into the *Greek* mouth of a native Egyptian priest too! — "And the annals even of our own city [Sais] have been preserved 8000 years in our sacred writing. I will briefly describe the laws and most illustrious actions of those States which have existed 9000 years."[203] — "And you will, by observing, discover, that what have been painted and sculptured there [in Egypt] 10,000 years ago, — and I say 10,000 years, not as a word, but a fact, — are neither more beau-

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[201] LEPSIUS, letter to Dr. S. G. Morton, "Philæ, Sept. 15, 1844;" *Proceedings of the Academy of Natural Sciences of Philadelphia*, Jan. 21, 1845: — See references to Lepsius's later works, in *Types of Mankind*, p. 692; and, for faithful copies of the inscriptions themselves, the Prussian *Denkmäler*, Abth. iv., Bd, 2, Bl. 137, 139, 151.

[202] "Les fortifications antiques à Samneh (Nubie)"—*Bulletin Archéologique de l'Athenæum Français*, Paris, Sept., 1855; pp. 81–4, Pl. v. Mr. Osburn's romantic inference, about the connection between these works and Joseph's seven years of famine, merely proves that this learned, if volcanic, Coptologist is no geologist (*Monumental History of Egypt*, London, 8vo., 1854; ii. pp. 35, 132–9.

[203] "The Timæus," PLATO'S *works*, Davis transl. (Bohn) London, 1849, vi., p. 327.

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tiful, nor more ugly, than those turned out of hand at the present day, but are worked off according to the same art."[204]

In his romance of *Atlantis*, Plato makes the Egyptian priest say to Solon, that the Athenian commonwealth had been created first by Minerva, and "*one thousand years* later she founded ours; and this government established amongst us dates, according to our sacred books, from *eight thousand* years." Referring to Henri Martin[205] for annihilation of this Platonic myth as an *historical* document, the passage merely serves to display PLATO'S conception of the world's antiquity. Farcy[206] follows him up with a ruinous critique of "Atlantis" as applicable to its ridiculous attribution to the population of America. Humboldt,[207] more good-natured, while treating Atlantis as mythic, seems inclined to hope the story may be true. Still, in no case, do Plato's theories help us to a sound chronology.

His 10,000 years for man in Egypt are but the half of the "20,000" now required, —23 centuries after Plato, by Bunsen, for the existence of mankind upon our planet's superficies; and thus, as I have long sustained,[208] we have finally got beyond all biblical or any other *chronology*. Indeed, the most rigorous curtailer of Egyptian annals, my erudite friend Mr. Samuel Sharpe, states the case (except that his date for Osirtesen seems too contracted) exactly as all hierologists of the present day understand Egypt's position in the world's history:

"For how many years, or rather thousands of years, this globe had already been the dwelling-place of man, and the arts of life had been growing under his inventive industry, is uncertain; we can hope to know very little of our race and its other discoveries before the invention of letters. But in the reign of Osirtesen the carved writing, by means of figures of men, animals, plants, and other natural and artificial objects, was far from new. We are left to imagine the number of centuries [*anterior to the Pyramids*] that must have passed

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[204] "The Laws," Burges transl., *op. cit.*, 1852, v. p. 50.

[205] *Études sur le Timée de Platon*, Paris, 1841, "Atlantide:"—*Types of Mankind*, pp. 594, 718, 728.

[206] *Antiquités Mexicaines*, before cited, ii. pp. 41–55.

[207] "Le recit de Platon offrirait moins de difficulté chronologique, l'intervalle de 210 ans entre la vieillesse de Solon et celle de Platon étant rempli par trois générations de la descendance de Dropidés, si, par une altération sans doute blamâble du texte, c'etait celui-ci et non Solon qui racontait à Critias, le grand-père de l'interlocuteur, ce qu'il avait appris, par Solon, de la catastrophe de l'Atlantide. * * * Platon, pour donner plus d'importance a son recit, aurait pu introduire tous ces faits dans un roman historique, et sa parenté avec Solon favorisait la probabilité de la fiction." (*Examen Critique de l'histoire de la Géographie*, &c., before quoted, "Considérations," i. pp. 167–73.)

[208] *Otia Ægyptiaca*, pp. 41–2; 61–8: and *Types of Mankind*, 683–9.

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since this mode of writing first came into use, when the characters were used for the objects only."[209]

Mr. Birch, living dispassionately in the midst of temptations, augmented hourly by the increasing copiousness of his materials, adheres, with admirable fortitude, to the non-recognition of any arithmetical system of chronology. His last and invaluable *précis* of Egyptian hieroglyphs[210] contains no allusion to this "vexata quæstio;" but we may look forward to a history of Egypt, reconstructed by himself exclusively from archæological monuments, that, according to my view, will ground Nilotic history upon a more stable basis than ever-fluctuating ciphers. In the meanwhile, a thorough revision of the astronomical data contained in hieroglyphical inscriptions,—data that, utterly misconstrued in object as well as import, for the last half-century, have provoked endless disputations—has at length enabled M. Biot[211] to fix three lifetimes of Pharaohs by three several instances wherein "the festival of Sothis (*Syrius*, the dog-star)," is recorded on monuments of the XVIIth and XXth dynasties. The first occurred about B. C. 1440, during the reign of THOTMES III; the second about B. C. 1300, under RAMSES III; and the third under RAMSES VII, about B. C. 1240.

Precious to science as are these new facts, I doubt whether the destruction of false hypotheses is not more so; and the removal of further hallucinations about pharaonic observation of the "Sothic Period" is one of countless reasons for gratitude to Biot.[212] After reading his criticism of Græco-Roman postulates, one recognizes how "It becomes easy to see that the idea of an heliacal Thoth, as if it had been *really* observed at Memphis, under conditions that would make it correspond, day by day, with that of Antoninus, after the revolution of 1461 vague years, is a pure fiction:" at the same time that, to imagine MENOPHRES, which is but a Greek translation of the nome (province) of Memphis, to have been a *King*, becomes, likewise, "a chimera."!

More popular, though not less interesting, is the beautiful "Determination of the Vernal Equinox of 1852, effected in Egypt, according to observations of the rising and setting of the sun in the *alignement* of the southern and northern faces of the great Pyramid of Memphis,

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[209] *History of Egypt*, London, 2d ed., 1852; i. p. 13.

[210] *Crystal Palace Library*, London, 12mo, Bradbury and Evans, 1856. Possessing only the *proof-sheets*, kindly given to me by my friend Mr. Birch, in advance of publication, I cannot supply its definitive title.

[211] *Mémoires de l'Académie des Sciences*, Tome XXIV, 1853.

[212] *Recherches de quelques Dates Absolues qui peuvent se conclure des dates vagues sur les Monumens Égyptiens*, Paris, 4to, 1853; pp. 16–17.

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by M. Mariette."[213] It explains how naturally this vaunted "wisdom of the Egyptians" (Acts vii, 22) reduces itself to simple "rules of thumb," still practised daily by the unlettered Fellaheen along the Nile; and proves also "que les préjugés du savoir une fois établis sont durs à détruire. C'est une sorte d'ignorance pétrifiée."

This aphorism of M. Biot applies with singular force to chronologers of the old school, among whom, however, must not be ranked Prof. Orcurti,[214] one of the Egyptologists attached to the Museum of Turin, where the liberal principles of Sardinia allow free utterance to opinion. He likewise advocates the longest chronology:—"Hence [the Champollionists] establish that Egyptian chronology must be studied at its direct fountains, independently of the chronological data of the Bible (I mean for the epoch anterior to the XVIIIth dynasty); inasmuch as, there not being a fixed and established chronology of Hebrew annals, reason insists that we should avail ourselves of that liberty which the [Catholic] Church concedes to us for using anysoever chronological system." * * * "Beyond this period [the XIIth dynasty which, with De Rougé, he fixes about 2900 B. C.], we do not care to prosecute the tedious task of adding ciphers that are only conjectural;" and, like myself,[215] Orcurti rejects the *contemporaneousness* of any Egyptian dynasties; holding that,—"all the ingenuity of Bunsen availed naught in causing a system to be accepted which is in contradiction with the historians and the monuments."

It is partly for this reason, and partly for another to be given anon, that I will not weary readers with an analysis of the 2d vol. (1853) of Chev. Bunsen's anglicised "Egypt's Place in the World's History," in which the author's enormous erudition rivals his wonderful dexterity in making his own *ciphers* harmonize with each other rather than with the monuments. Neither is it worth the labor to point out the whimsicalities of the "Monumental History of Egypt" (1854), by Mr. Osburn a scholar that, apart from his unquestionable skill in deciphering inscriptions, coupled with a good knowledge of Coptology, seems to hanker after the character of Homer's Margites, *who knew a great many things, but all of them wrong.*[216]

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[213] BIOT, *Journal des Savants*, May, June, July, 1855; p. 29, &c.: and Idem. "Sur les restes de l'Ancienne Uranographie égyptienne que l'on pourrait rétrouver aujourd'hui chez les Arabes qui habitent l'intérieur de l'Égypte"—*op. cit.* Aug. 1855. See especially DE ROUGÉ, "Noms égyptiens des Planètes,"—*Bul. Archéol., Athen. Français*, Mars–Avril, 1856.

[214] *Catalogo illustrato dei Monumenti Egizii del R. Museo di Torino*, Turin, 8vo, 1852; pp. 47, 51, 57.

[215] *Types of Mankind*, pp. 677, 683.

[216] BENTLEY'S *Phalaris*, Dyce's ed., London, 8vo, 1836; II, p. 14; from *Alcib.* II *of Plato*, *Op.* III, 116, ed. 1826.

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Even for the only true synchronism, yet proved, between Egyptian monuments and Hebrew records, viz: the conquest of Jerusalem by Shishak;[217] a latitude of some 15 years must be allowed, as shown by the following table.[218]

Champollion-Figeac,	*Letronne,*	*Lenormant,*	*Wilkinson,*	*Bunsen,*	*De Rougé,*	*Barucchi,*
B. C. 971.	980.	981.	978.	982.	973.	989.

There being absolutely nothing, heretofore discovered, in the hieroglyphics, relative to any preceding relations between the Israelites and the Egyptians, we are reduced to the vague process of *chronological parallels* for conjecturing under what particular "Pharaoh" (king), occurred the Exodus, or Joseph's ministry, or Abraham's visit; and inasmuch as neither on the Egyptian, nor on the Jewish side, can arithmetical precision[219] be attained beyond Solomon's age, or about 1000 B. C., we may now, after 34 years of incessant scrutiny since Champollion's "Précis," give up further illusion that any closer synchronism between Moses and the "Pharaoh" who was *not* drowned in the Red Sea,[220] than the one very plausibly arrived at by Lepsius,[221] and adopted by Viscount E. de Rougé,[222] will ever be wrought out.

After showing the probability that Moses must have succeeded the reign of *a* Ramses (*Exod*, I, 11—"Raamses"), and that the Exode probably took place while MENEPHTHAH, son of Ramses II, was on the throne, De Rougé now confirms an assertion made by me, ever since I acquired some knowledge of hieroglyphics (in Egypt, 1839–41),—and advanced in the face of then-preponderating hopes rather than testimony to the contrary, that—"we have not found, upon the monuments, the trace of these first relations of the Israelites with Egypt." They never will be found; and this for reasons which a critical examination of the ages and writers of the *book* called "Exodus" would conclusively explain.

"Chronology," continues De Rougé, "presents too many uncertainties, as much in Egyptian history as in the Bible, and especially when an endeavor is made to measure the period of the *Judges*, for one to be able, *à priori* and through a simple comparison of dates, to define under what king took place the exit from Egypt. The difficulty is still greater when it concerns the patriarch Joseph,

[217] GLIDDON, *Chapters on Early Egyptian History, Archæology, &c.*, 1st ed., New York, 1843; 15th ed., Philadelphia, 1854; pp. 2, 3.

[218] ORCURTI, *op. cit.* p. 50.

[219] *Types of Mankind*, pp. 688, 706, 714.

[220] WILKINSON, *Man. and Cust. of the Ancient Egyptians*, London, 1837; I. pp. 54–5.

[221] *Chronologie der Ægypter*, Berlin, 4to, 1st part, 1849; pp. 358–63.

[222] Conservator of the Imperial Museum at the Louvre — *Notice Sommaire des Monumens Égyptiens du Musée du Louvre*, Paris, 18mo, 1855; pp. 14, 15, 22–3.

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because the length of the time of servitude in Egypt is itself the object of numerous controversies." * * * "As we have said, the synchronism of Moses with Ramses II [XIXth dynasty], so precious at the historical point of view, gives us insufficient light for chronology; because the duration of the time of the Judges of Israel is not known in a very certain manner. We shall remain within the limit of the probable on placing SETI I about 1500 [B. C.], and the commencement of the XVIIIth dynasty toward the 18th century. But it would be by no means astonishing if we deceived ourselves two hundred years in the estimate, so greatly are the documents vitiated in history or incomplete upon the monuments.

"We have thus mounted up to the moment of the expulsion of the Shepherds [*Hyksos*]: here we shall not even undertake any further calculation. The texts do not accord as to the time which the occupation of Egypt by these terrible guests lasted, and the monuments are silent in this respect. That time was long; several dynasties succeeded each other before the deliverance: this is all that we know about it. We are not better edified concerning the length of the first empire, and we possess no reasonable means of measuring the age of the pyramids, those witnesses of the grandeur of the primitive Egyptians. If nevertheless we recall to mind, that the generations which constructed them are separated from our vulgar era, first by the eighteen centuries of the second Egyptian empire, next by the very long period of the Asiatic invasion, and lastly by several numerous and powerful dynasties that have bequeathed to us some monuments of their passage, the hoary antiquity of the pyramids, maugre inability to calculate it exactly, will lose nothing of its majesty in the eyes of the historian."

From this rapid sketch of the unanimity of opinion as to the *historic* and *prehistoric* periods of human life in Egypt (oldest of historical countries) towards which scientific men in France, Italy, Germany, and England, are now converging, the reader will appreciate the correctness of the view taken by me, and supported with other citations, in *Types of Mankind.* It merely shows how different minds, reasoning without prejudice upon the same common stock of data, necessarily arrive at similar conclusions. But M. de Rougé's reference to the difficulties of adjusting the chronology of the Book of *Judges* induces a glance at its new and likely solution proposed by Mr. Samuel Sharpe.[223]

The obstacles to previous settlement of the succession of Israel's

[223] *Historic notes on the Books of the Old and New Testaments* (supra, note 29) pp. 40–6.

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Judges are familiar to possessors of Cahen,[224] De Wette,[225] Munk,[226] Righellini,[227] or Palfrey.[228] Hitherto, as Basnage[229] remarks, owing to superstitions of modern European origin upon the exaggerated antiquity of their literature, the Jews "have been the librarians of God, and ours too:" nor are they only bigoted Talmudists who still maintain, "that he who sins against Moses may be forgiven, but he that contradicts the *Doctors* deserves death." There are plenty of teachers extant who, without the faith or the Hebraism of old Solomon Jarchi (*Raschi*), would with him declare, that—"if a *Rabbi* should teach that the left hand is the right, and the right the left, we are bound to believe him."[230] But, for the purpose in hand, which is to show how Mr. Sharpe re-arranges the discrepant Book of Judges, it suffices to repeat the exhortation of St. Jerome,—"Relege omnes et Veteris et Novi Testamenti libros, et tantam annorum reperies dissonantiam et numerum inter Judam et Israel, id est, inter regnum utrumque confusum, ut hujusce-modi hærere quæstionibus, non tam studiosi, quam otiosi hominis esse videatur:"[231] not forgetting either, how the father of Catholic biblical criticism, PÈRE SIMON de l'Oratoire, eschews—"the *punctilios* of chronologists; that contain more vowels than consonants, and which it would be more incommodious to harmonize than the different clocks of a large city. * * Impossible to make an exact chronology through the Books of Sacred Scripture such as they are at this day."

"Albeit," writes Munk,[232] "it is impossible to present an *historical* tableau of the epoch of the Shophetìm. The Book of Judges, which is the only one we can consult about that epoch, is not a book of *history*. Every thing in it is recounted in an unstitched manner, and the events succeed each other with rigorous sequence and without chronological order. It is a collection of detached traditions about the times of the *Shophetìm*, composed probably upon ancient poems and upon popular legends that celebrated the glory of these heroes. This collection, which dates from the first ages of the monarchy, had for object, as it appears, to encourage the new government to com-

[224] *La Bible, Traduction Nouvelle*, "Schophetìm," vol. vii.; Paris, 1846.

[225] *Crit. and Hist. Introduction to the Canon. Scrip. of the Old Testament*, Boston, transl. Parker, 1843; ii. pp. 196–8.

[226] *Palestine*, Paris, 1845; pp. 230–1, 441.

[227] *Examen de la Religion Chrétienne et de la Religion Juive*, Paris, 8vo., 1834; iii. p. 560

[228] *Academical Lectures on the Jewish Scriptures*, Boston, 8vo., 1840; ii. pp. 208–35.

[229] *History and Religion of the Jews*, transl. Taylor, London, fol. 1708; pp. 344, 170.

[230] MACKAY, *Progress of the Intellect*, London, 8vo., 1850; p. 14.

[231] *Epist. ad Vital.*—RICHARD SIMON, *Histoire Critique du Vieux Testament*, Amsterdam, 4to., 1685; i. pp. 38, 350, 204–8.

[232] *Palestine*, p. 231.

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plete the work begun by Joshua, and to show to the people all the advantages of hereditary royalty. For this purpose, it sufficed to show, by a series of examples, what had been the disorders to which the Hebrews delivered themselves up, during the days of the republic; what had been the evil consequences which the (loving) weakness of the Hebrews towards the Canaanites had caused, and how the temporary power of one alone had always preserved them from total ruin. One must not, therefore, think to establish with exactness the chronological order of facts and the epoch of each judge. *Savants* have given themselves, in this respect, useless trouble, and all their efforts have completely failed. It will suffice to say that the ciphers which we find in the Book of Judges, and in the first book of Samuel, yield us, from the death of Joshua to the commencement of the reign of Saül, the sum total of 500 years; which would make, since the exode from Egypt, 565 years; whereas, the first book of Kings counts but 480 years from the going out of Egypt down to the foundation of the Temple under Solomon. According to this, one must suppose [with Mr. Sharpe] that several of the Shophetim governed simultaneously in different countries. In the incertitude of the dates, and in the absence of *historical* sources, we must content ourselves by here giving a summary of the traditions contained in the Book of Judges, to afford a general tableau of the state of the Hebrews during that period, without pretending to establish a chronological succession."

The great merit of Mr. Sharpe's restoration to accordance of the dislocated fragments contained in *Judges* is its simplicity; and simplicity, so far from being an index to a primeval stage of human intellect, is always an expression of modern philosophical science.

"To determine the chronology, we must have regard to the geography; and we shall see that the wars here mentioned do not always belong to the whole of the Israelites;" that is, they often occurred simultaneously, and not, as generally supposed by the old chronologers, consecutively — different points of Palestine being ruled over by different judges at the same time. "The whole argument will be made more clear by the following Chronological Table:

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B. C.	GENEALOGIES.	THE COUNTRY DIVIDED ACCORDING TO TRIBES.					B. C.
	Jacob.	Judah, Simeon, Dan, Benjamin.	Issachar, Zebulon, Asher, Naphtali.	Ephraim.	Gad, Manasseh.	Reuben.	
1400	1. Judah. 2. Pharez. 3. Ezram.						1400
1300	4. Aram.	Exodus under Wanderings Invasion of	Moses. in the Desert. Canaan.	Joshua.			1300
	5. Aminadab.	Servitude under	Syrians.	Under Amalekites	and Midianites.	Under Moabites.	
	6. Naasson.	Othniel. Rest, 40 years.	Rest, 40 years.		Gideon. Rest, 40 years.		
1200	7. Salmon.	Servitude under Philistines. Shamgar.	Servitude under Canaanites. Deborah. Rest, 40 years.	Abimelech. Tola.	Jair.	Rest, 80 years.	1200
	8. Booz.	Servitude under Philistines.				Under Ammonites.	
	9. Obed.	Samson.	Ibzon. Elon.	Abdon.	Jephthah.		
1100	10. Jesse.			Samuel. Saul.			1100
	11. David.						

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Mr. Sharpe hence infers, that "the Book of Judges ends in the year B. C. 1100, and begins with Joshua's death, about B. C. 1250; and the Exodus took place about B. C. 1300. In this way, from the Exodus to the building of the Temple, in the fourth year of Solomon's reign, is 289 years. If, instead of considering the periods of time in part contemporaneous, we had added them all together [*as did the unknown writers of Kings*], we should have had about the 480 years mentioned in 1 Kings vi, 1. But the above calculation is fully confirmed by the genealogies," &c.

In the topographical and coetaneous tabulation of these judges, few students will disagree with the learned author; but, in a later portion of his valuable work, Mr. Sharpe himself indicates the vagueness inherent in all these Jewish attempts at restoring their lost chronology:[233] "The events, indeed, in the history, from the Exodus to Solomon's death, can hardly occupy more than three centuries, if we observe that the times mentioned are mostly in *round numbers of forty years each*, which we are at liberty to consider indefinite, and only to mean *several years*."

Thus, if, on the one hand, new evidences from the monuments and the alluvial deposits of the Nile constrain Egyptologists to claim, for man's occupation of that valley, epochas so far beyond all *historic* chronology (and no other deserves the name), as to eliminate the subject, henceforward, from any computation of the contradictory elements contained in Hebrew, Samaritan, Greek, or Latin, biblical codices: on the other, the parallel advance in Scriptural exegesis has curtailed to rational limits the preposterous antiquity formerly claimed for the Israelitish nation.

Whether Usher (in the margin of king James's version) takes, with Marsan, 480 years as the interval between the exode and Solomon's temple; or Bossuet, 488; or Buret de Longchamps, 495; or Pezron, 837; has now become a matter of no consequence. "Three centuries," a little more or less, is the average between Mr. Sharpe's estimate and that of Lepsius, at about 314–322 years.[234] To reach nearer than that supputation is a hopeless task, upon existing MSS. of the Old Testament,—each one being faulty.

Since it has been discovered that, before Rabbi Hillel, son of Juda, the Jews had made no scientific attempts (whatever the Alexandrian Greeks may have done) to establish a "chronology" for their own nation, no further dependence can be placed upon Hebrew numeration. Hillel died about 310–12; and in such repute was his autho-

[233] *Historic Notes*, p. 82. Lepsius's argument to the same effect is cited in *Types of Mankind*, pp. 706–12.

[234] *Chronologie der Ægypter*, I, 335–7.

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rity held, that St. Epiphanius claims his previous conversion[235] from Judaism! Hillel, continues Basnage, did three things which rendered him famous among Jews and Christians. One of them was: "It was that he fixed the *epocha* from the Creation of the World, and reckoned the years from them. Different *epochas* were made use of before. The departure from *Egypt* was the *æra* of some; the Law given at *Sinai* was that of others: one reckoned the years from the Dedication of the Temple; another from the return out of captivity: some dated from *Alexander the Great's* entering into Jerusalem, which they looked upon as a considerable event to the Republick. But since the *Gemara* was finished, they began to reckon the years from the Creation of the world; and we are told that it was *Hillel* who established this *epocha*, and transmitted it to posterity (for it is still observed); and, according to his calculation, *Jesus Christ* was born in the year 3760." * * * The Jews sustained, however, that "*Jesus Christ* is not the *Messiah*, since he came above 200 years before the end of the fourth millennium:" * * * on which Basnage comments that "*Jesus Christ ought to be born in the year* 3910"!

"Variæ opiniones de numero annorum à creatione ad nativitatem Christi: et quid de fine mundi sentiendam,"—is a statement illustrated by Gaffarelli[236] with a list of more than twenty authorities, from Paulus Forosemproniensis down to Malvenda, in which the dates for the Creation range from B. C. 3760 to 6310! "Ex quibus concluditur, nec dies neque annos à creatione ad Christum absque peculiari revelatione sciri posse." To the above, his translator obligingly adds five more estimates of the year of the Nativity,—between A. M. 3837 and A. M. 3970: marvelling, with Clemens Alexandrinus (*lib.* I, *Strom.* B), at the existence of persons, in *his* time, who (not perceiving exactly, with our acuter national Didymus, how *chronology* "binds man to God") attempt precision in determining Jesus's birth—"Sunt qui curiosiùs non solum annum sed diem addunt!" And this erudite father of the Church was living (A. D. 192–217) barely two centuries after the occurrence of this the greatest (among ourselves) event of events.

Mosheim[237] honestly concedes that the year of Christ "has not been hitherto fixed with certainty;" but adopts, as "most probable," "the year of Rome 748 or 749 (*Matt.* iii, 2; *John* i, 22; &c.):" in-

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[235] BASNAGE (supra, note 229), pp. 157–9:—conf. also MACKAY, *Progress of the Intellect*, II, pp. 307–15.

[236] *Curiositatæ Inauditæ de figuris Persarum Talismanias, Horoscopo Patriarcharum et Characteribus Cœlestibus;* Latinè-operâ M. Gregorii Michælis; Hamburgi, 1676; cap. II, pp. 7, 44–8, 180–2. 337–40.

[237] *Ecclesiastical History*, transl. Maclaire; 1st American ed., Philadelphia, 1797; I, p. 52.

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forming us, in a note, that "the learned JOHN ALBERT FABRICIUS has collected all the opinions of the learned concerning the year of Christ's birth." To his work I turn:[238] although the question be not even settled at this day![239]

Under the head of "Minutiæ in chronologicis minus consectandæ," Fabricius enlarges upon the uncertainties of chronology; backing assertion with citations of 141 *different* epochs assigned to Christ's nativity by about 283 *authorities*, who begin at A. M. 3616 and end at A. M. 6484, for this all-important event. Then, for those who "Christum natum consent" in *An. Urbis cond.* (the year of the building of Rome), they range between 720 and 756 A. U. C. If, more particular, we ask—"Quo mense natus Christus?" a table is presented to our sight in which different computators have agreed upon the 6th *January*, or the 10th *idem*, or *February*, or *March*, or the 19–20th *April*, or the 20th *May*, or *June* "XI Kal. Julias," or *July*, or *August* "sub finem mensis," or *September* "die XV Septembris, Jo. Lightfootus ad Lucæ II, 7," or *October* "sub init.," or the 6th *November*, or the 18th of the same, or, lastly, the 25th *December* —"ex communi Græcæ et Latinæ Ecclesiæ traditione."

Fabricius adds this singular coincidence—"Pulchre observarunt Viri docti à Romanis die VIII Cal. Januarii sive XXV Decembris celebratum diem natalem *Solis invicti*, initium nempe periodi annuæ et brumam: eamque solennitatem à Christianis opportune translatam ad *Natalem Solis Justitiæ*."

Raoul-Rochette,[240] in his erudite inquiries into the Phœnician god *Melkarth*, as an incarnation of the Sun at the Winter Solstice—a subject greatly developed by Lanci[241]—has carried these Roman analogies back to a much earlier period in Canaan. He says—"We know, through a precise testimony in the ancient annals of Tyre, the principal festivity of Melkarth, at Tyre, was called his *re-birth* or his *awakening*, ἔγερσις (JOSEPH., *Antiq. Jud.*, VIII, 5, 3); and that it was celebrated by means of a *pyre*, whereupon the god was supposed to *regain, through the aid of fire*, a *new life* (NONNUS, *Dionysiaca*, XL,

[238] *Bibliographia Antiquaria, sive Introductio in notitiam Scriptorum, qui antiquates Hebraicas, Græcas, Romanas, et Christianas scriptis illustraverunt;* 2d ed., Hamburgh, 4to, 1716; pp. 185–7, 193–8, 342–3, 344.

[239] See DE SAULCY, "Sur la date de la naissance et de la mort du Christ,"—controverted by ALFRED MAURY, "Sur la date de la naissance du Christ" (*Athenæum Français*, 1855, pp. 485–6, 513–4).

[240] *Mémoires d'Archéologie comparée, Asiatique, Grecque et Étrusque.* Ire Mém., "L'Hercule Assyrien et Phœnicien consideré dans ses rapports avec l'Hercule Grec;" Paris, 4to, 1848; pp. 25–7, 28, 29–38.

[241] *Paralipomeni all' Illustrazione della Sagra Scrittura per Monumenti Fenico-Assirii ad Egiziani;* Paris, 1845, 4to 2 vols. *passim.*

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398). The celebration of this festival, of which the institution mounted up to the reign of king Hiram, contemporary of Solomon, took place *at the month Peritius;* of which the second day corresponded to the 25th December of the Roman calendar (SERV. *ad Æn.* VII, 720 — JABLONSKY and ZOEGA); and, through a coincidence that cannot be fortuitous, this same day, viz: the 25th December, was likewise at Rome the *dies natalis Solis invicti;* a qualification under which *Hercules* was worshipped at Tyre and elsewhere. It was, therefore, really the *death* and the *resurrection* of a *god-Sun*, that was celebrated at Tyre, at the *Winter* solstice, through this pyre of Hercules; and already we seize, in its primitive and original form, one of the principal traits of the legend of the *Hellenic Hercules.*" * * * And this lamented scholar continues to show how Movers (*Die Phœnicier*, I, 386) proves that, in the time of Ahab (1*st Kings*, XVIII, 27), a "god *deceased* and *resuscitated*" was a fundamental idea in the Jewish theocracy; as well as to point out the relations between this Semitic myth and that of the Phœnician god Adonis; who is the *Tham-uz* bewept by Israelitish females, at the gate of the holy Temple, in the time of the Prophets (*Ezekiel*, VIII, 14).

If we seek at Rabbinical sources for their various supputations concerning the advent of their Jewish "Messiah," the most learned and critical of their standard divines, Maimonides, acquaints us that —"the Messiah should have come in the XIIIth century, in the year 1316. But as that has not yet happened, others refer the end of their misfortunes to the year 1492, others to the year 1600, and others again to the year 1940:" * * * some even holding "that the MeShaiaH hath been a long time born, and remains concealed at *Rome* until ELIAS come to crown him." [242]

These few citations, confirmatory of my distrust, expressed in our last publication,[243] of any chronological systems, suffice to establish accuracy of fact and deduction. The toils of Sisyphus, or the pangs of Tantalus, seem nothing compared with those experienced by hundreds of chronologists who, rivalling in pertinacity the Rosicrusian's search after the "elixir of life," have exhausted every expedient, our patience and their arithmetic, to discover when our world had a *beginning*. The superstition as to the possibility of success in any such endeavors is now fast taking rank, among men of science, with its extinct corollary — so miserably distressing to our Bœotian ancestors, about the year 1000 of our era — viz: anxious cipherings as to the world's *termination*. On this phase of humanity's cyclic

[242] BASNAGE, *op. cit.*, pp. 374–5.

[243] *Types of Mankind*, pp, 657–62.

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hallucinations,[244] it has been well observed by W. Rathbone Greg,[245] that "the error of Paul (1 *Thess.* IV, 15) about the approaching *end* of the world, was shared by all the Apostles (*James*, V, 8; 2 *Peter*, III, 12; 1 *John*, II, 18; *Jude*, v. 18)."

From Hebrew to Assyrian subjects the transition is natural; if but to observe that very trifling, as regards *chronological* determinations, has been the progress since Layard's second Expedition, published in 1853.[246] Col. Rawlinson's various papers in the Royal Asiatic Society's Journal,[247] together with his unceasing announcements of new discoveries, through the London "Athenæum" especially, have not been yet arranged into a "corps de doctrine:" so that, except the summary tables in the last edition of Mr. Vaux's learned work,[248] there is little settled about cuneiform annals, whether in England or on the Continent; notwithstanding the enormous increase of materials, due to the local exhumations of Ross, Loftus, Fresnel, Oppert, Place, Rassam, Jones, and other laborers around Mosul and Bagdad. Cuneatic students (as was in part the case 15 years ago with Egyptian hieroglyphics, which possess clews that the others have not) are still struggling, not merely with the philology of three distinct tongues, Semitic, Indo-Germanic, and Scythic, encountered in arrow-headed inscriptions of different epochas and at different localities, but against the more arduous phonetic complications of the various groups or signs in which archaic dialects of these three idioms are expressed. In consequence, that which is read one way by Rawlinson in England, is, generally speaking, read in another by Hincks in Ireland; both are oftentimes obnoxious to the conflicting versions

[244] Forbes Winslow, "On Moral and Criminal Epidemics," — *Journ. of Psychol. Med. and Mental Pathology*, April, 1856; Art. VI, pp. 251–2. Alfred Maury, *Les Mystiques extatiques et les Stigmatisés*,—extrait des "Annales Medico-psychologiques," Paris, 1855; pp. 49–50. Also his review of Lelut's *Démon de Socrate*, in *Athenæum Français*, 1 Mars, 1856.

[245] *The Creed of Christendom*, London, 8vo, 1851; pp. 19–25, 181–3.

[246] *Types of Mankind*, p. 702.

[247] *Outlines of Assyrian History*, 1852; — *Notes on the early History of Babylonia*, 1855.

[248] *Nineveh and Persepolis*, 4th edition, revised and enlarged — London, 12mo, 1854, pp. 506–9. While writing, I see by the London *Times* (Aug. 12, 1856) that, at the meeting of the Brit. Assoc. for the Adv. of Science, just held at Cheltenham, Sir Henry Rawlinson is *reported* to have "shown that the impressions on the bricks found at 'Ur of the Chaldees,' were marked with the name of a king, which he thinks identical with the Chedorlaomer of Genesis, and *at least* 2000 *years before Christ*." I have no doubt that, at the rate Assyrian "confirmations" are going on, the contemporary history of Abraham himself would yet be found in cuneiform, but for a slight exegetical difficulty; viz.: the *age* of the unknown writer of the XIVth chapter of Genesis (*Types of Mankind*, p. 604, note 111). [The above was penned last Sept. Since then I have read Col. Rawlinson's most interesting "Discourse" (*Athenæum*, Lond. 1856, pp. 1024–5); and learn that the Assyrian empire was not instituted before the 13th century, B.C.,—a modern date to Egyptologists. When cuneatic students in England are enabled, through arrow-headed typography, to rival Oppert's resources in "Imprimérie Impériale" (*Bul. Archéol. Athen. Fr.*, Mai, 1856), palæography will place more faith in their translations.]

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of Oppert and De Saulcy in France; whilst, in Germany, the father of cuneiform decipherers, Grotefend, frequently prefers a reading of his own. Out of this embarrassing state of affairs, a feeling of mistrust has gradually arisen, especially at Paris, the centre of archæological criticism; which has found voice, at last, in the pages of Renan;[249] than whom, amid masters of Semitish tongues and history, none are better qualified to judge.

"If one must feel grateful toward those persons who venture into these unknown lands, whilst exposing themselves to a thousand chances of error and of ill success, the greatest reserve is commanded in presence of contradictory results, obtained through an uncertain method, and sometimes presented without any demonstration. Is it not excusable to doubt, in such matters, when one sees the man who has made for himself the greatest renown in Assyrian studies, M. Rawlinson, sustain that the Assyrians did not distinguish proper names by the *sound*, but by the *sense;* and that, in order to indicate the name of a king, for instance, it was permitted to employ all the synonymes which could approximately render the same idea;—that the name of each god is often represented by monograms differing from each other, and arbitrarily chosen;—that the same given character was read in several ways, and must be considered in turns as ideographic or phonetic, alphabetic or syllabic,[250] according to the needs of interpretation;—when one sees, I say, M. Rawlinson avow that many of his readings are given exclusively for the convenience of identification [as amongst one of the last beautiful "confirmations" —*Daniel's* herbivorous Nebochadnassar!]; that it is often permitted to modify the forms of characters to render them more intelligible:—when, lastly, one sees, upon such frail hypotheses, a chronology and a chimerical pantheon of the ancient empire of Assyria constructed? What must we think of the inscriptions, called Medic, which would be written, if one must credit the same Savant, in a language wherein the declension would be Turkish, the general structure of the discourse Indo-European, the conjugation Tartar and Celtic, the pronoun Semitic, the vocabulary Turkish, mixed with Persian and with Semitic? To this method I prefer even that of M. Norris, who, persuaded, like MM. Westergaard and De Saulcy, that the language of the inscriptions of the third species is Scythic or

[249] *Histoire et Système comparé des Langues Sémitiques*, Paris, 1855; pp. 64–9, 70.

[250] It is nevertheless true, that a *sign* does often possess these different powers, and must so be read, in hieroglyphics; but in the latter form of writing (whether cuneatics possess such indices to the method of reading or not), the *groups* themselves furnish the key by which to know its value. Conf. LEPSIUS, *Lettre à Rosellini*, Annali, 1837, pp. 31–47:—BUNSEN, *Egypt's Place*, 1848, I, pp. 594–600:—DE ROUGÉ, *Mémoire sur le Tombeau d'Ahmes*, 1851, p. 178:—and BIRCH, *Crystal Palace Hand-Book*, 1856, pp. 222–9, 248.

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Tartaric (what I do not mean to deny), undertakes to explain them through Ostiak and Tcheremiss, and claims to give us, with the help of the inscriptions, a complete Scythic grammar. One must be profoundly wanting in the sentiment of philology, to imagine that, by assembling upon one's table a few dictionaries, the infinitely-delicate problem can be solved, if it be not insoluble, of an unknown tongue written in an alphabet in major portion unknown. Even were the language of the inscriptions perfectly determined, it could not be, save through an intimate knowledge of all the neighboring idioms, that one might arrive at giving with certainty the grammatical explanation and the interpretation of such obscure texts."

Taking China, on our way back to Egypt from Chaldea, it is to be remarked that, since the labors, hitherto unimpeachable, of the Jesuit missionaries, 200 years ago, little or nothing has been done, in that impenetrable country, by European criticism of their ancient monuments or annals, to invalidate the sketch of Chinese chronology borrowed from Pauthier.[251] No preconceived opinions (or desires), on my part, induce suppression of doubts as to the *historic* claims of this Sinologico-Jesuit account of Chinamen's antiquity to absolute credence. There are improbable circumstances about the re-finding copies of their ancient books, after the destruction of libraries by Chi-hoang-ti,[252] about B. C. 213, — parallel with librarian auto-da-fé's elsewhere—on which some more positive narration might be consoling; and Davis[253] has remarked how, in the flowery empire itself, "a famous commentator, named Choofootse, observes: 'It is impossible to give entire credit to the accounts of those remote ages.' China has, in fact, her *mythology*, in common with all other nations." She had, also, at very early times,—hundreds of years prior to the Grecian Thales—her astronomical observations. Among these (if any point seemed certain in Chinese or other histories) were two eclipses of the sun, recorded as having taken place in the reign of TCHONG-KANG, whom Father Amiot's table places about B. C. 2159–47.[254] The former was computed, by Gaubil, to have occurred on the 13th Oct., 2155 B. C.; and by Freret and Cassini, during B. C. 2007: the latter by Rothman, resuming Chinese supputations, in the Julian year 2128. Now, it is unfortunate that, with the precise "Tables Abrégées, composées par M. Largeteau pour faciliter le *Calcul des Syzygies* écliptiques et non écliptiques," neither this astronomer nor

[251] *Types of Mankind*, pp. 695–7.

[252] PAUTHIER, *Chine*, Paris, 8vo, 1837; pp. 222, 236.

[253] *The Chinese*, 12mo, London, I, p. 157.

[254] PAUTHIER, *Chine d'après les documents chinois*, Paris, 8vo, 1837, p. 180: — "Histoire critique du Chou-king"—*Livres Sacrés de l'Orient*, Paris, 8vo, 1843; pp. 3–5

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M. Biot[255] was, down to 1843, able to find that either of two solar eclipses, which really occurred at that remote period, could have been *visible in China* at all!

As to Hindostàn, the fiat of Klaproth[256] stands unshaken by any more recently discovered facts; at the same time that the plurality of later critics, out of Germany,[257]—a country where the affinities of Sanscrit with Allemanic idioms had, indeed, superinduced a state of rapture that is beginning to melt away—corroborate the modernness of its annalists: "We are ignorant of what was [only in the 7th century, B. C.!], in these remote times, the state of India." * * * "The total want of materials has forced me to pass over in silence the history and the antiquities of India. The political geography of this vast country, even a long time after it had been inhabited by the Mohammedans, is still very little known to us."

Prinsep[258] shattered the alleged antiquity of Hindostanic inscriptions; nothing, throughout the peninsula, ascending within four or five generations of the modern age of Buddha,—assumed at the 6th century B. C.[259]

And, if *art* (vide Pulszky's chapter, II. *ante*) be chosen as the criterion, the previous investigations of Langlés had ruined the fabled age of Iudia's structures; "because, according to the judicious observation of Mr. Scott Waring (*Hist. of the Mahrattas*, p. 54), there exists no authentic information anterior to the establishment of the Mussulmans in the peninsula (before the 14th century of the vulgar era); and it would be superfluous to seek for some historical documents in works written in Sanscrit." * * * The pagoda of Djuggernaut, begun in the 9th century, "is a new proof in favor of our opinion upon the modernness of the monuments of the Peninsula." * * * Ellora, by the Brahmans estimated at 7915 years old, was by Muslim writers reduced to 900; and thus, says Langlés, "the date of 600 to 700 years seems to me more probable than that of 7915." These rock-temples present traces of Greek architecture: their ele-

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[255] *Journal des Savants*, Paris, 1843; 1r article; tirage à part, pp. 4–8.

[256] *Tableaux historiques de l'Asie*, Paris, 4to, 1826; pp. 2, 286.

[257] De Gobineau, (*Inégalité des Races*, II, pp. 101–3), has allowed himself to be somewhat carried away as to *Arian* antiquity; but his observations on old-school philologers (p. 105) seem to me to be correct.

[258] *Journal of the Asiatic Soc. of Bengal;* Calcutta, 1828; VII, pp. 156–67, 219–282:—and Sykes, *Jour. R. Asiatic Soc.*, London, 1841; VI, Art. 14, Appendix III.

[259] *Monuments anciens et modernes de l'Hindoustan*, Paris, folio, 1821; I, pp. 117, 131; II, 12–3, 66–8, 70, 169—70, 184, 208. Cf. also Briggs, *Aboriginal Race of India*, R. Asiat. Soc., June, 1852; pp. 7–9, 14. The Arian-Hindoos did not even conquer the Dekhàn much before the 5th century of our era:—the modernness of Elephanta, Salsette, &c., was suspected at sight by the judicious observer Bishop Heber (*Narrative of a Journey through the upper Provinces of India*, London, 4to, 1828; II, pp. 179, 192).

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phants were cut by foreign artists; and "the leaves of *Acanthus* are badly drawn and capsized around the base of a pillar of Hindoo style; so that this base gives the idea of a Corinthian capital turned upside-down." The Hindoo zodiacs, too, are all Greek and modern!

We have seen that Palestine, Mesopotamia, and essentially Hindostàn, afford no stand-point for *annual* chronology, even to the year B. C. 1000; and that, beyond the twenty-third century prior to our era, at the outside, China fails to supply us with proofs of anything more than a long previous unhistorical existence. There are no other lands, except Egypt, whose historical period attains to parallel antiquity with the two first-named countries; notwithstanding abundant evidence of Etrurian, Phœnician, and Lydian, civilizations of much earlier date than 2850 years backwards from our time. Pelasgic Greece falls into the latter category. Whether as *nomads* or *errants*, as the *ancient* or the *old*,[260] "the remembrance of these most ancient inhabitants of Greece loses itself in transmythological ages." Their successors on Hellenic soil have left us no determinate chronology beyond the Olympiads, beginning with the foot-race won by Corœbus in the year B. C. 776;[261] and these victories were not arranged in their present order for 500 years later, viz., by one Timæus of Sicily, about B. C. 264.

"The Pelasgi and the other primitive populations of Greece," continues Maury, "do not appear to have possessed any ancient tradition upon cosmogony and the first ages of human society. They were, in this respect, in the same ignorance, in the same vagueness, wherein the savage septs of Asia, of Oceauica, and of the New World, are still found, who have not been brought into contact with more enlightened nations. One encounters nothing, in fact, among the primitive Hellenes, analogous to the cosmogonies of Genesis, of the books of Zoroaster, or the laws of Manou. Which sufficiently proves, that the intellectual state of these Pelasgic tribes was very far removed from that of the Israelitish, Persian, or Hindoo peoples." Like these Asiatics, the Greeks of a later day anthromorphosized inventions; or else made the proper name of a *country*, a *river*, or a *hill*, the primordial human ancestor of a nation.[262] "Thus, in Elis, a personage whose name was taken from that of the Olympic games, *Aethlios*, passed for the first king of the country, and was regarded as the son of Zeus and Protogeneia.

"So, likewise, in antiquity, the name of pretended inventors of

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[260] ALFRED MAURY, *Recherches sur la Religion et le Culte des Populations primitives de la Grèce*, Paris, 8vo, 1855; pp. 2, 20, 30–1, 201–4, 216–24.

[261] ANTHON, *Dictionary of Greek and Roman Antiquities*, New York, 1843; pp. 678–9.

[262] *Types of Mankind*, pp. 549, 551–2, for parallel examples.

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certain arts was forged through the aid of words which designated either the objects or the instruments of which the arts make use, or even by the help of the proper names of these arts themselves. It is thereby that Closter (Κλωστήρ), that is, the *spindle*, was held to be the inventor of the art of spinning wool. The art of striking fire from flint was discovered, it was said, by Pyrodes (Πυρώδης), that is, the *burning*, the *kindled*, son of *Cilix* (*silex*), the flint. The 'pisé' (*luteum ædificium*) had been invented by Technes (Τέχνης), *art*, incorrectly written *Docius* in the manuscripts of Pliny; the rule (*regula*) and not the tile (*tegula*), as one reads in some manuscripts, had had for its author Cinyrus, son of Acribeïas. The name of this Cinyrus is derived from the root *canna*; and a false reading has substituted, for the name of Acribeïas (ἀκρίβεια, *rectitude*), that of Agriopas. Chalcas (Χάλκος, *brass*), son of Athamas ('Αδάμας, *hard metal*), had made the first bucklers, &c.;"—just as, in king James's version, TtUBuLKaIN, literally, the *God-Vulcan*, has become transmuted into "TUBAL-CAIN, an instructer of every artificer in brass and iron."[363]

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[263] *Genesis* iv, 22:—conf. GLIDDON, *Otia Ægyptiaca*, p. 141, note.

Every one knows that whether "GOD appeared in the flesh," or "WHO appeared in the flesh," of 1 *Timothy* iii, 16, depends upon OC or ΘC in the Codex Alexandrinus at the British Museum; which biliteral, through pious handlings, is now effaced! (CARDINAL WISEMAN, *Connection between Science and revealed Religion*, London, 1836; II, pp. 168–9. See also the same fact in WETSTENII *Nov. Testament.*, II, p. 864; cited in BISHOP MARSH'S *Michælis*, I, p. 577, notes.)

"The history of Saint Ursula and of the 11,000 virgins whose innumerable relics are shown, arranged in one of the churches, at Cologne, owes its origin to an expression of the old calendars. *Vrsula et Undecimella*, VV. MM.; that is to say, 'Saint Ursula and Saint Undicimella, virgins and martyrs.' Ignorant readers have, as one perceives, singularly multiplied the latter saint. Conf. Brady, Clavis Calendaria, t. 2, p. 334." (ALFRED MAURY, *Légendes Pieuses du Moyen-Âge*, Paris, 8vo, 1843; p. 214, note.)

Here is one Hebrew, another Greek, and a third Latin, example, out of hundreds at hand (in *Hebrew* especially), to illustrate historical metamorphoses. Where either instance does not suit the taste of a Bœotian, it may that of an Athenian. But for the orientalist I add an inedited specimen, due to the kindness of a Persian scholar, my old friend Major-General Bagnold, of the Hon. East-Ind. Comp.'s Service.

In the Arabic alphabet, adopted with slight modifications by Persians, the letter ZÈYN, Z, is distinguished from the letter RÈ, R, only by a "nuqta," dot, or point, placed above the former letter's head. "The author of the *Anwarry Saheilly* jocularly criticizes the use of points by an amusing couplet, which I translate almost verbatim, and paraphrase:

'If Anwarry, within this world,
Could wish to live without its *zéhimut*
(misery) زحمت
Nature brings forth a filthy fly
To dung o'er the head of RÈ in *réhimut*
(mercy) رحمت.'"

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"In the time of Pausanias, the people of Corinth, to whom the circumstances of the foundation of their city were totally unknown, recounted that this city had been built by a king named Corinthus.

"All these personages of poetical fiction were attached, afterwards, to the divers countries from which the Greeks fancied themselves to have originated; deceived as they were by resemblances of traditions and the lying assertions of strangers emulous of being the parents of their civilization. It is hence that Phœnicia, Media, Egypt, Libya, Ethiopia, and India, were regarded as the cradle of these heroes, all *Greeks* by their origin and their name,—traditions comparatively modern, that have led more than one scholar astray, but of which criticism has definitively ruined the authenticity."

In justice to my friend M. Maury, I ought to mention that his foot-notes sustain every statement with irrefragable testimony. We behold, however, in Greece,—a country about which we possess more information than concerning any other on earth,—thanks to her ancient historians and to modern archæologists—how human *origines*, in one and the best-represented locality, are absolutely unknown. If in storied Hellas such is the case, what must we expect to find about man's primordial advent upon our planet, among less historical nations? The prefatory remarks to the "American Realm" of our *Ethnographic Tableau* will illustrate another phase of this argument.

The chronological deficiencies encountered everywhere else compel a final return to the monuments of the Nile. Amid their petroglyphs and papyri alone can we hope to weave a thread by which to measure the *minimum* length of time that a type of humanity must have occupied that valley. In our former work,[264] a synopsis of hieroglyphical investigations exhibited how Egyptian chronology stood in the year 1853. Four years have passed, and I have nothing to alter. Correct then, the same views are accurate now; for, with the exception of an appendix to the Misses Horner's translation[265] of his travels, Chev. Lepsius has not more definitively treated on chronology; nor, up to the spring of last year (1856), had he published his *Book of Kings;* until the appearance of which, I have consistently maintained since 1844, no professed *system* of Egyptian chronology can, in the very nature of human things, possess solid or durable claims to attention:—such as have recently appeared, worthy of respect, being either like M. Brunet de Presle's,[266] a re-examination of the classical sources; or else like Chev. Bunsen's second volume (*ubi supra*), a

[264] *Types of Mankind*, 686–9.

[265] *Letters from Egypt, Ethiopia*, &c. (supra, note 198).

[266] *Examen critique de la Succession des dynasties égyptiennes*, Part I, Paris, 8vo, 1850.

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labyrinth of arithmetical adjustments satisfactory to no one but their learned calculator; or again, similar to the useful but very piece-meal coverings of a skeleton chronology by M. Brugsch,—[267] who, in the main, agrees with the time-measurements previously laid down by Lepsius; or finally, ingenious attempts at unsettling that which had been generally agreed upon, by Champollionists, through M. Poitevin's[268] attorney-like process of detecting some suppositititious flaw in the indictment.

For myself, therefore, as before stated, I have no more precise Egyptian chronology to offer than that already sketched in *Types of Mankind;* and having waited some twelve years for Lepsius, it is small hardship to extend one's patience for a few months longer: because, as I had the pleasure of hearing from his own lips last year, during our rencontre over the new treasures of the Louvre Museum, the *Book of Kings* must now be near the point of its appearance at Berlin. The delay of publication, since its announcement about 1845,[269] is not to be regretted. The Chief of the Prussian scientific mission, upon his return from the East in 1846, had first to arrange the periodical issue of the magnificent *Denkmäler*, by no means yet completed; and next, in such standard works as the *Chronologie der Ægypter*, followed by innumerable minor essays, to clear away erroneous hypotheses whilst indicating novel facts, before the *chronological* frame-work, resulting from accumulated discoveries, could be filled up in method satisfactory to archæologists.

Through such wise procedure, his *Book of Kings* will now embody the enormous series of historical data derived (only since 1850) from the Memphite exhumations of M. Aug. Mariette — latterly appointed, by Imperial discrimination, one of the *Conservateurs du Musée du Louvre.*

With an outline of this gentleman's conquests in Egyptian science, my addenda to the pages[270] of our last volume (wherein his name foreshadows revelations, the extent of which none but himself could then appreciate) may properly close. It was my good fortune to arrive at Paris in Nov. 1854, within a week of M. Mariette's return there, fresh from the scenes of his four-year's toil beneath desert-ground with the superficies of which, around the Pyramids of Sakkàra, I had been familiar from 1831 to 1841. Introduced to him at the Institute by our collaborator M. Alfred Maury, nothing

[267] *Reisberichte aus Ægypten* (supra, note 199).

[268] *Mémoire sur les Sept Cartouches de la Table d'Abydos attribués à la XIIe dynastie égyptienne*—Extrait de la *Revue Archéologique*, 11e Année, Paris, 1854.

[269] Gliddon, *Appendix*, 1846, to all subsequent editions of "Chapters on Early Egyptian History," p. 3.

[270] *Types of Mankind*, pp. 675, 686.

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could exceed the frankness and prolonged kindness of his bearing towards an elder Nilotic resident. M. Mariette is too highminded for me to express more than a grateful acknowledgment of facilities by him accorded to me; not forgetting either those of his able coadjutor at the Louvre, my friend M. T. Devéria.

The first reliable announcement of results of "Excavations at the Serapeum of Memphis" appeared over the signature of a far-famed archéologue, F. de Saulcy de l'Institut:[271] but the treasures brought thence by Mariette, were not arranged for public inspection in the Louvre-galleries, until the 15th May, 1855, during the *Exposition universelle.* The facts are these.

Sent out to Egypt "en mission" in quest of ancient Coptic MSS., the curiosity of our Egyptologist was excited at Alexandria, Aug. 1850, by the sight of numerous uniform Sphinxes of calcareous stone, covered with Greek inscriptions, said to have been brought from Sakkàra, the necropolis of Memphis. Following at Cairo the advice of Linant-Bey, during a trip to the localities, M. Mariette discovered, peeping out from the sand, one of this self-same kind of sphinx *in situ.* For a man of his education and quick energy this indication sufficed. Gangs of workmen were immediately employed to clear away the sand which, since the days of Strabo — B. C. 15 — had accumulated over these rocky undulations to a depth varying from 10 to 70 feet; and, by the 25th Dec. of the same year, an avenue, in length above 6600 feet, was laid bare, flanked by the remains of a double row of sphinxes, of which 141 were in good preservation.

At the end of this alley, a little further exhumation disclosed — astounding to relate, in an *Egyptian* cemetery — a hemicycle formed of Greek statues of Hellenic worthies; Pindar, Lycurgus, Solon, Euripides, Pythagoras, Plato, Æschylus, Homer, Aristotle! Thence branched off a paved dromos to the right and left; the latter pathway to a temple built by Pharaoh Amyrtæus (about B. C. 400) in honor of Apis; the former straight to the long-lost Serapeum. Two chapels, one Greek and the other Egyptian, intersected the middle of this road on its left side; and, in this last, large as a calf at 8 months, was inclosed a most beautiful and perfect statue, carved in white calcareous stone, of the sacred bull *Apis!* As probably the one visited by Strabo, it now ranks among other priceless treasures of the Louvre. Infinite inscriptions, Egyptian, Greek, and even Phœnician, containing the proscynemata, votive offerings, of generations of foreign visitors to the holy shrine; Hellenic and Pharaonic bronzes, effigies, and monuments of many materials and

[271] *Le Constitutionnel,* Paris, 9th and 10th December, 1854; *Feuilletons.*

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objects, in and around this sanctuary of Serapis, were the reward of eight months' fatigue: when, as usual in Ottoman lands, local intrigues and international jealousies arrested the works for a season, until the prompt interference of the French Government, with a grant of 30,000 francs for expenses, enabled the undaunted explorer to resume his active day-labors in Feb. 1852. His nocturnal researches were never abandoned however; and his gallant defiance as well of falling blocks as of assassination had been crowned, on the night of the 12th Nov. 1851, by entrance into a subterranean city of death, — the vast sepulchral caves of more than 64 generations of *Apises*, covering a period of above 15 centuries, were nightly trod by Gallic foot: that is to say, more than 1600 years since the last Gaulish legionary had stared at *Apis dead*, or that in Alexandria, about the times of St. Mark, there had been proclaimed the advent of *Apis living:* — ζωὴν επερχομένην, "the life which comes;" narrate the ecclesiastical historians, Rufinus (*obiit* A. D. 408), Sozomen (*obiit* 450), and Socrates (*flour.* 440); the last of whom, acquainted with a book which, according to St. Jerome, Sophronius had composed concerning the destruction of the Alexandrian Serapeum, about A. D. 391, relates that—"The Christians, who regard the cross as a sign of the salutary passion of Christ, thought this sign [the *crux ansata*, hieroglyphicè *ankh*, ☥—"life eternal"—found in that temple of Serapis] was the one which belongs to them; the gentiles said, that it was something common to Christ and to Serapis"[272] — *i. e.* "HaPI-HeSIRI (Osiris-Apis) *great God who resides in Amenthi, the lord living forever;*" as Serapis is addressed in hundreds of inscriptions now at Paris.

These researches were vigorously pushed for about four years along the Memphite necropolis, resulting, as will be seen presently, in an immense accession of antiquities, from the earliest Pharaonic to the latest Roman times — a period of some 4000 years. Through them, the age of the colossal sphinx of Geezeh has been carried back to the primeval IVth dynasty; and, for chronology, a collection of funereal tablets (about 650 saved out of some 1200 found), now in the Louvre, giving the genealogies of individuals (one I saw goes back, fathers and sons, about 19 generations), often with the dates of kings' reigns, year, month and day, of every epoch, will enable archæology to fill a thousand gaps in the time-measurement of old

[272] LETRONNE, *La Croix Ansée égyptienne* (Mém. de l'Acad. des Inscrip., 2d part) — "tirage à part," Paris, 1846; pp. 24–26: citing textually, Rufinus II, c. 26 and 29 — Sozomen, *Hist. eccles.* VII, 15, p. 725 B — and Socrates, V, 17, p. 276, A. B. Conf. also, DE POTTER, *Histoire du Christianisme.*

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Egypt. The last catalogue of the Louvre museum[273] enumerates but few of these uncounted treasures. Science must wait patiently for their co-ordination by their discoverer, when France publishes his folio Monuments. Meanwhile, as De Saulcy says—"The names of a dozen new Pharaohs have been found; and the 400 principal steles, that are now deposited in the Louvre, are like 400 pages of a book written 3000 years ago, which reveal to us a multitude of details, heretofore unknown, about the life and the religion of ancient Egypt. Furthermore, art itself has to put in her claims for a share in the rich booty of M. Mariette; and I limit myself to citing, among other monuments, an admirable statue of a *sitting Scribe*, dating certainly 4000 years before the Christian era, and which is a *chef-d'œuvre* of the plastic art."

This *Scribe* is fac-simile-ed in our frontispiece, with other contemporaneous associates from the same tomb (Vth dynasty) in plates II to VIII of this present volume. They are due to the complaisance of my friends MM. Devéria and Salzmann (author of those unsurpassable *photographs of Palestine*), who, with the sanction of MM. De Rougé and Mariette, kindly brought their instruments to revivify, at the Louvre, the specimens first offered to the American public in this work. M. Pulszky's practised eye has already assigned them a proper place in the history of iconographic art (Chapter II, pp. 109–116, *ante*).

But Mariette must speak for himself.[274]

"I estimate," says the explorer, "that the diggings at the Serapeum of Memphis have led to the discovery of about 7000 monuments.

"But all these monuments are not relative to the same object, that is to say to the worship of the God adored in the Serapeum. Built in a necropolis more ancient than itself, the Serapeum held within its enclosure some old tombs which the piety of Egyptians had respected. Nearly all its walls were, besides, formed of stones borrowed from edifices already demolished. * * * The clearing out of the Serapeum has, therefore, really had for result the discovery of the 7000 monuments already mentioned. But the monography of Serapis does not count upon more than about 3000;—a very respectable cipher, if one recollects that few questions of antiquity have ever reached us under the escort of a similar number of original documents. * * * It is not, then, a treatise upon Serapis that must be required from the little essay of which I am tracing the lines. If

[273] *Notice Sommaire* (supra, note 222).

[274] "Renseignements sur les 64 Apis trouvés dans les souterrains du Sérapéum"—*Bulletir Archéologique de l'Athenæum Français*, Paris, May–Nov. 1855; Articles I to V.

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it be accorded to me some day to render a detailed account of the operations of which the Serapeum was the theatre, I will endeavor to show and to define the Serapis whom the classifying and interpretation of the texts found in the temple of this god have revealed to us. It will then be seen what Serapis really was. It will be seen how Serapis was a god of Egyptian origin, as ancient as *Apis*, seeing that after all he is but Apis dead. It will be seen how the Serapis of the Greeks is only another amalgamated Græco-Egyptian god; and how these two divinities have lived at Memphis in two distinct Serapeums, in each other's presence, without ever being confounded."

"It is known that the Serapeum is situate, not at Memphis, but in the burial-ground of Memphis; and that this temple was entirely built for the tomb of Apis. The Serapeum is merely, therefore, according to the definition of Plutarch and of Saint Clemens-Alexandrinus, the sepulchral monument of Apis; or rather the Serapeum is the temple of *Apis dead*, who, in consequence, must be distinguished from the temple of *Apis living*, that Herodotus has described, and which Psametichus embellished with the colossi of Osiris. Apis had, then, properly speaking, two temples; one which he inhabited under the name of Apis during his lifetime, the other wherein he reposed after his death under the name of Osorapis"—corrupted by Greeks and Romans into *Serapis*.

"By way of *résumé*, the explanations which I have just given have already had for result to show us:—

1st.—That the Serapeum is but the mausoleum of Apis; and thus that the principal god of the Serapeum, that is to say, Serapis, is but *Apis dead;*

2d.—That there had been at Memphis two Serapeums; one founded by Amenophis III. [*Memnon*—XVIIth dynasty, 15th century B. C.], in which the worship of the god of the ancient Pharaohs preserved itself intact down to the Roman emperors [3d century after C.]: the other, inaugurated a short time after the advent of the Greek dynasty at Memphis, and in which the Alexandrian Serapis, result of a bifurcation [i. e. a separation of religious doctrine] operated under Soter I. [about B. C. 310], was more especially adored;

3d.—That the clearing out of the only one of these temples that has been explored, has produced 7000 monuments; among which the monography of Serapis can merely claim the 3000 objects that, by their origin, are relative to this god;

4th.—That these 3000 objects come almost all from the tomb of Apis properly so-called; and hence that the collection of the Louvre possesses a funereal and Egyptian character, quite different from that

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which it would seem a collection, drawn entirely out of the temple of Serapis, ought to assume;

5th.—Finally, that this tomb had been violated and sacked; but that, notwithstanding, the principal divisions of the monument and the nature of the objects gathered from it have permitted the proximate re-construction of the ancient state of the localities, and to establish, in a manner more or less certain, the existence of a minimum of 64 Apises"—that is, of the hieroglyphic records, and some remains, of at least 64 *embalmed bulls* dedicated to, and once buried in this sanctuary of, the god *Apis*.

Mariette then proceeds to catalogue, by epoch and circumstances, the succession of these divine animals, in the most detailed and interesting manner; for which I must refer to the luminous papers themselves. Space confines my remarks to but one point bearing on *chronology*.

Ancient writers cited by him[275]—all, however, disciples of the later Alexandria-schools—affirm that the lifetime of the sacred *bull* Apis was restricted to 25 years; at the expiration of which the quadruped deity was put to death by theocratic law, and a canonical successor sought for and installed. This custom becoming assimilated to the periodical conjunction, every 25 years, of the solar and lunar motions, on the same day and at the same celestial points, had led to modern astronomical suggestion of a famous cycle, called "the *period of Apis*." Nevertheless, the two ideas are proved by Mariette to be wholly distinct; the luni-solar cycle of 25 years being used as far back as Claudius Ptolemy (about A. D. 150) in his tables; and the supposed application of this cycle to *Apis* being derived from an incidental and misapprehended remark of Plutarch, that—"multiplied by itself, the number 5 produces a square equal to the number of the Egyptian letters and to that of the years lived by Apis."[276]

Did the Pharaonic Egyptians, in limiting, according to later Grecian accounts, the life of *Apis* to 25 years, recognize therein the luni-solar cycle in vogue among astronomers of the Alexandria-school? If they did, a most useful implement is at once found by which to fix an infinitude of points in Egyptian *chronology*. Alas! The funebral tablets demonstrate that some Apises died a natural death before the 25 years were completed, and that others lived "26 years," and "26 years and 28 days," or "25 years and 17 days."

"Hence the argument is positive. Our Apises die at all ages; and

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[275] PLINY, viii. 46:—SOLINUS, c. 32:—AMMIANUS MARCEL., xxii. 14, 7:—PLUTARCH, *De Iside*, c. 56; &c., &c.

[276] See also the authorities in LEPSIUS, *Über den Apiskreis*, Leipzig, 1853:—and *Chronologie der Ægypter*, i. pp. 160–1.

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it is evident that if each end of a luni-solar cycle of 25 years had coincided with a death of Apis, the monuments would have already told us something about it. On the contrary, they prove to us that our Apises were subject to the common law at the will of destiny, without caring for the moon or its position in the sky relative to the sun. The *period of Apis* seems to me definitively buried."

Thus, day by day, as Egyptology advances, we discover that many of the scientific, theological, and philosophical notions, in most works of modern scholars (as yet unaware that *hieroglyphics are translated*) attributed to the simple and practical denizens of the Nile, are the posterior creations of Græco-Judaico-Roman intellects at Alexandria —more than a millennium after the whole economy of the Egyptian mind had reached its maximum of development.

Definite cyclic chronology—they had none! Their long papyric registries of reigns (*Turin papyrus*, for instance), their unnumbered petroglyphs recording dates, are marked with the civil year (of 365 days), month, and day, of each monarch's reign; but without reference to any historical era, or to any astronomical cycle. "Sothic periods," — "Apis-periods," and all other periods, are but the formulas through which Ptolemaic Alexandrians tried, after Manetho (B. C. 260)—what we are still attempting, 2000 years later—to systematize for Grecian readers the *chronology* of a primitive, unsophisticated, people who, content with the annual registry of events by the reigns of their kings—as here we might date in a given year of such a President, or in England they do in such a year of Victoria—were satisfied with this world as they found it created, never troubling their brains about the *date* of its creation.

Religious dogmas—they had many; but the *Funereal Ritual*,[277] or *Book of the Dead*, now that we know its fanciful and almost childish contents, is more interesting to the Free-mason[278] than to any other reader,—except as phases of the human mind, and also for its inestimable value to the philologist. There is naught in it about cosmogony; nor, have we any genuine Egyptian tradition of their origin earlier than what little was learned by Herodotus in the 5th century B. C.—viz: that Egyptians reported themselves to be *autochthones*.[279] Diodorus's and all other notions on the subject are merely echoes of the foreign Alexandria-school.

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[277] BRUGSCH, *Saï an Sinsin, sive Liber metempsychosis veterum Egyptiorum a duabus papyris funeribus hieraticis*, Berolini, 4to, 1851; pp. 1–2.

[278] LEPSIUS, *Todtenbuch du Ægypter*, Leipzig, 4to, 1842: — In speaking of acquaintance with the doctrines of the Ritual, I would especially thank Mr. Birch for his generosity in furnishing me, long ago, with an autograph synopsis of each chapter and with translations of its more interesting columns.

[279] HEROD.

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Philosophy—the very word is *Greek!*[280]

It might, therefore, be wise for future writers, if they do not choose to avail themselves of the correct information accessible only in works of the living Champollionists, when writing about the world's history, to give Egypt no place in it; lest, by relying too much on the absurd anachronisms of Alexandrine Greeks, they should expose the ignorance of two parties.

Meanwhile, Egyptian *chronology* is being rebuilt stone by stone, inscription by inscription, epoch by epoch. Already the structure, in the hands of Lepsius, rears its head with MENES at 3983 years before our vulgar era; and if a skeptic should desire to behold the constructive process in its perfection, I would refer him to Mariette's restoration of the XXIId, or *Bubastite* dynasty[281]—B. C. 10th and 9th centuries—for the *nec plus ultra* of archæological science in our time.

Having now laid before the reader a sufficient epitome of facts and recent authorities to support those presented in our former work, I am free to state that, in common with my contemporaries, I recognize *no chronology whatever* anterior to the Old Empire, or the pyramidal period of Egypt; neither can I find solid grounds for *annual* computation anywhere prior to about 2850 years backwards from this year—the LXXXth of the Independence of these United States; nor, for *centennary*, in the oldest civilized country,—the lower valley of the Nile—for times anterior to the XVIIth dynasty, assumed at about the 16th–18th *centuries* B. C.

Under this view, to which archæologists with other scientific men are fast approaching, we have "ample room and verge enough," for carrying human antiquity upon earth to any extent that geology and natural history combine to permit. The former science, at present, restricts the possibility to the *alluvials* and the *diluvial drift;* the latter, perhaps, warrants our taking a little more "elbow room." Either boundary will suffice for the continuation of our inquiries into tumular remains of primordial humanity, and their relations to the ascending series of man's precursors, the *fossil* and *humatile simiæ.*

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[280] "Pythagoras was the first man who invented that word" ΦΙΛΟΣΟΦΟΣ, *philosopher;* BENTLEY, *Phalaris*, Dyce's ed., London, 8vo, 1836; I, p. 271.

[281] *Bulletin Archéologique* (supra, note 274)—"tirage à part," Nov. 1855; pp. 5–14, and *Tableau généalogique.*

[A recent obliging letter from Paris informs me that "M. Mariette a fait paraître une dissertation sur la *mère d'Apis*, dans laquelle il établit que les Égyptiens avaient sur la mère d'Apis des idées fort analogues à celles que les Catholiques ont sur la Vierge Marie, et où il retrouve notamment le dogme de l'immaculée conception." This I have not yet received. When I do, it will be interesting to compare it with the masterly *Sermon prêché dans le Temple de l'Oratoire, le* 12 *Novembre*, 1854 (Paris), on "Un Dogme Nouveau concernant la Vierge Marie," by ATHANASE COQUEREL.]

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PART III.

HAVE fossil human bones been found? The chapter entitled "Geology and Palæontology in connection with human Origins," contributed by Dr. Usher to our preceding work, answers affirmatively; and well-informed critics[282] have conceded that his argument is sufficiently powerful to arrest unhesitating acceptance of Cuvier's denial, now more than a quarter of a century old. The subsequent discovery of fossil *simiæ*, equally unforeseen by the great naturalist, in Europe, Asia, and America, has put a new face on the matter: "In fact," wrote Morton in 1851,[283] "I consider geology to have already decided this question in the affirmative." So does Prof. Agassiz.[284]

Now, either fossil remains of man have been discovered, or they have not.

Archæology no longer permitting us to trammel human antiquity by any *chronological* limits, — having, to speak outright, before my eyes neither fear of an imaginary *date* of "creation," nor of a hypothetical "deluge" — I approach this inquiry with indifference as to the result, so long as errors may be exploded, or truth elicited: and, to begin, it strikes me that here again, as above argued in regard to "species," much ink might have been spared by previously settling the signification of the term "fossil." I know[285] the alleged criteria by which really fossilized bones are determined; and have inspected, often, palæontological collections of all epochas in Paris, London, and at our Philadelphian Academy of Natural Sciences. On every side I read and hear doubts expressed as to whether *fossil man* exists; yet, when opening standard geological works,[286] I encounter, repeatedly, "*fossil* human skeleton" in the same breath with "*fossil* monkeys;" and then ascertain elsewhere (ubi supra) that the latter

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[282] PAUL DE RÉMUSAT, *Revue des Deux Mondes*, 1 Oct. 1854, p. 205:—D'EICHTHAL, *Bulletin de la Société de Géographie*, Année 1855, Jan. and Feb., p. 59:—MAURY, *Athenæum Français*, 12 Aout, 1854; p. 741; RIGOLLOT, *Mémoire sur des Instruments en Silex*, &c., Amiens, 8vo, 1854; pp. 19, 20.

[283] *Types of Mankind*, p. 326—"Morton's ined. MSS.":—HAMILTON SMITH, *Nat. Hist. of the human Species*, pp. 99–102.

[284] *Op. cit.*, p. 352.

[285] *Op. cit.*, p. 346.

[286] MANTELL, *Petrifactions and their Teachings*, British Museum, London, 12mo, 1851; pp. 464, 483;—Ibid., *Wonders of Geology*, London, 12mo, 6th ed., 1848; I, pp. 86–90, 258–9;—Ibid., *Medals of Creation*, London, 12mo, 1844; pp. 861–3:—MARTIN, *Natural History of Mammiferous Animals, Man and Monkeys*, London, 8vo, 1841; pp. 332–6, 354–7. SIR CHARLES LYELL (*Principles of Geology*, London, 8th ed., 1850; pp. 142, 734), however, makes clear distinctions between "Guadaloupe skeletons" and "fossil monkeys."

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are found in Europe back to the tertiary deposits,—one feels inclined to ask, how a single adjective comes to designate two osseous states denied to be identical? "Il n'y plus que les Anglais, ou l'école de Londres," says Boué,[287] "qui s'écartent souvent du langage classique. Comme on juge l'éducation d'un individu par son parler, de même on peut être tenté de prendre le style du géologue comme thermomètre de son savoir."

It is, indeed, through popular currency of a word which, used exoterically when talking with theologers, implies that *man is recent*, in the biblical sense; or, when esoterically employed among scientific men, means that *man is very ancient* in ethnological, alluvial, botanical, and other senses,—that the real question of human antiquity upon earth has been obfuscated.

Thus, every one knows that the presence of "animal matter, and all their phosphate of lime" (Lyell) in the Guadaloupe skeletons at the British Museum, no less than in the *Galerie d'Anthropologie* of the Muséum at Paris, combine with other data to invalidate their antiquity; but, on the other hand, the presence of animal matter—even to "the marrow itself—sometimes preserved in the state of a fatty substance, burning with a light flame"[288]—does not the more bring the Irish *fossil elk* (*Elaphus hibernicus*) within the limits of chronology, nor make the human body, bones, and implements, found with this extinct quadruped, the less ancient.

As a contemporary[289] with mastodons, mammoths, and carnivora of the caves and ossuaries in the ascending scale of time, and with man in the descending, this Irish *fossil stag* links the elder and the old stages of the mammiferous series, amid which mankind possess a place, uncertain as to epoch, but certain as to fact.[290]

Nor is this fossil Hibernian stag (or *elk*, which, Hamilton Smith says, lived as late as the 8th century), the only instance of the extinction of "genera" and "species" since man has occupied our chiliad-times-transforming planet. I refer not to *Elephas primigenius*, or to *rhinoceros tichorinus;* neither to *ursus* or *canis spelæus*, nor to *bos priscus*, *equus*, and many other genera[291] among which human remains occur: if their coetaneousness is recognized by some, it is contested by others; so here the cases may be left open: but such examples as

[287] *Voyage Géolog.*, I, p. 419:—AINSWORTH, *Researches in Assyria*, &c., London, 8vo, 1838; p. 12.

[288] *Op. cit.*:—MANTELL'S *Address to the Archæological Institute at Oxford*, 1850.

[289] ALFRED MAURY, *Des Ossemens Humains et des Ouvrages de main d'Hommes enfouis dans les roches et les couches de la terre, pour servir à éclairer les rapports de l'Archéologie et la Géologie*, Paris, 8vo, 1852; pp. 34–40.

[290] See what Dr. Meigs has quoted from a late paper by Mr. Denny (*supra*, p. 289).

[291] HAMILTON SMITH, *op. cit.*, pp. 95–6.

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by the most rigorous opponents of man's antiquity—Elie de Beaumont, Buckland, Brogniart, Lyell, Owen, and other illustrious palæontologists—are accepted. Since Roman days, *bos longifrons* no longer roams the British isles; even if *bos aurochs* may yet have escaped the yager's bullet in Lithuanian thickets. Man and the *moa* (*dinornis giganteus*) were formerly at war in New Zealand: the *dodo* vanished, during the 16th century, from Tristan d'Acunha; leaving but a skull and a foot (if memory serves) to authenticate its portrait in the Ashmolean Museum at Oxford. So too has the *dronte* expired at the Mauritius. Of the *epinornis* we know not whether living natives of Madagascar—that unaccountable island to which, Commersan (Bougainville's naturalist) happily says, "Nature seems to have withdrawn, as to a sanctuary, therein to work upon other models than those which she had mastered elsewhere"—still feast on its colossal eggs. And, taking again our oldest historical country, and the one with which I happen to be somewhat acquainted, where, in Egypt, is now the *ibis religiosa*,[292] of yore as common as Guinea-hens with us? Who but an unconquerable botanist, amid the fens of Menzaleh, could point out the *cyperus papyrus;* or any where along the Lower Nile discover an indigenous *faba Ægyptiaca?* Yet the former was once the main instrument of Pharaonic civilization; being with the latter, the "primitive nutriment of man," and symbolizing "the first origin of things."[293] Six hundred years have passed since Âbd-el-Lateef deplored the extinction of the little clump of sacred *perseas* languishing then at Shoobra-shâbieh. Where, before his day, there had been thousands, now curiosity doubts over but one sample—in my time, withering in the garden of the Greek patriarch at Cairo. Emblem of Thoth, minister of Osiris, guardian of the plummet in the mystical scales of Amenthi, the *cynocephalus hamadryas*, if still an unruly denizen of Abyssinia, Arabia, and Persia, no more steals in Egypt the sycamore fig:[294] *hippopotami* have fled up to Dongola; and wary *crocodiles* are not shot *at* lower down than the tomb of Mooràd-bey, last of the brave, at Girgé. Like the wolf in England, or his dog in Erin, one genus is extinct; the other all but so: or else, as within the territories of our vast Republic—compared to which[295] "the domains of the House of Hapsburg are but a patch on the earth's surface"—the native rattlesnake flees before the imported hog, the bison disappears before the face of starving Indians;

[292] During 15 years of a sportsman's life in Egypt, I never saw one alive. My old friend Mr. Harris has latterly been more fortunate. Cf. *Proceedings of the Acad. of Nat. Sciences*, Philadelphia, 1850.

[293] HERODOTUS, ii. 92:—HORUS APOLLO, i. 30:—GLIDDON, *Otia Ægyptiaca*, p. 59.

[294] ROSELLINI, *Monumenti*, for the plates.

[295] WEBSTER to HULZEMAN, 1851

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and these last relics of succumbing savagism are melting away before whiskey, Bowie-knives, and Colt-revolvers; so parallely, in many branches—botanical, zoological, and human—of Natural History, the AUTHOR of Nature, within historical recollection, has ever vindicated her eternal and relentless law of "formation, generation, dissolution."[296]

The tableau of osseous and industrial vestiges of *bimanes* met with over the world, supplied by Marcel de Serres,[279] brings down fossil discovery to some twenty years ago. Much of what has been done since, particularly in America, is summed up by our collaborator Usher. My comments, therefore, may be restricted, after indicating fresher materials, to these and some few amongst the elder facts. Nomenclature, as above shown, being passably vague, it may be well to come to an understanding with the reader upon the senses of some words in our terminology; taking M. de Serres for our guide.[298]

"These (geological) formations having, then, been wrought by phenomena of an order totally different from the tertiary, one must necessarily designate, under a particular name, those organic remains found in them. At first, it had been proposed to give to these *débris* the name of *sub-fossils*, so as thereby to indicate their newness, relatively to the *true fossils*. Preferable it has, notwithstanding, seemed to us, to designate them under the term of *humatiles*;[299] a denomination derived from the Latin word *humatus*, of which the meaning is nearly the same as that of *fossilis*; with this difference, that the former expresses the idea of a body buried in an accidental rather than in a natural manner."

It must be allowed that the last sentence somewhat establishes "a distinction without a difference;" but I presume M. Serres to

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[296] R. PAYNE KNIGHT, *Inquiry into the Symbolic Language of Ancient Art and Mythology*, London, 8vo, 1818; pp. 25, 107, 112, 180–1, 190, &c.:—but especially in his *Account of the Remains of the Worship of Priapus, lately existing at Isermia*, Naples; in "two Letters to Sir Jos. Bankes and Sir Wm. Hamilton, London, 4to., 1786; pp. 107–22.

[297] *Essai sur les Cavernes* (supra, note 132), pp. 194–7.

[298] *Op. cit.*, p. 216: — see tables illustrative of the chemical composition of *humatile* and of *fossil* bones, p. 93.

[299] OGILVIE, *Imperial Dictionary, English, technological and scientific*, Glasgow, 4to, 1853; I., pp. 944–6: — (*Humus*, soil) "HUMUS, a term synonymous with *mould*" — "HUMATE: a compound formed by the union of *humus* with a salifiable basis. The humus of soils is considered to unite chiefly with ammonia, forming a *humate* of that substance." — p. 790, (*Fossil, fossilis*, from *fodio, fossus*, to dig,) "more commonly the petrified forms of plants and animals, which occur in the strata that compose the surface of our globe" — II., p. 286, "Organic remains." I have not met, however, with the form "*humatile*" in works written in our language.

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understand, by *accidental*, disturbances of a more recent and local character, such as earthquakes, volcanoes, ruptures of mountain barriers, terrestrial subsidences, inundations of rivers, &c.; and by *natural*, those earlier commotions, cataclysms, and disruptions, known in geological history. Klee[300] remarks—"One would conceive a false idea of *fossils*, if it were thought that they were always remains of organic bodies, of petrified animals or vegetables. A fossil is oftenest nothing more than *the mineral filling the space originally occupied by an organic body, vegetable or mineral, of which the hard parts have been successively penetrated and replaced by mineral substances.* Sometimes this substitution is made with such precision, that these last have altogether taken the structure and form of the parts annihilated; which has given to the mineral a striking resemblance to the organic body destroyed."

In the following observations, however, by the term "fossil" are meant only such bones as those truly fossilized; *ex. gr.*, those of the *megalosaurus, palæotherium, megalonyx, iguanodon*, &c., &c. By "humatile," we understand bones which, not having been subjected to those conditions that incommensurable periods of geological time have alone supplied, are necessarily more recent—containing more or less animal matter, phosphate of lime, and so forth; according to their own relative ages, various ingredients, and several gradations of condition. With "petrifactions," of course we have nothing to do; because they are of all epochs—*fossil* as well as *humatile*—and can be made in stalactite caves, such as those of Derbyshire or of Kentucky; or manufactured by chemical procedures at any moment; not to speak of the lost art of the Florentine, Segato.[301]

With this definition, let the query be repeated—Are *human* fossil remains extant?

I have not yet seen Prof. Agassiz's Floridian "jaws and portions of a foot;" but, so far as literary or oral instruction extends, I can find but one *human* fossil. Our Philadelphia Academy of Natural Sciences is its possessor, viz., Dr. Dickeson's "trouvaille" of the fragment of a pelvis at Natchez. Dr. Usher[302] pleads for its authenticity as a *fossil;* which condition neither human art, nor any process short of Nature's geological periods, can, 'tis said, fabricate. Sir Charles Lyell, acknowledging the bone itself to be a fossil, suggests that this same *os innominatum* may have fallen down, from a recent

[300] *Le Déluge, Considerations géologiques et historiques sur les derniers cataclysms du Globe*, Paris, 18mo., 1847.

[301] HARLAN'S translation of GANNAL'S *History of Embalming*, Philadelphia, 8vo., 1840; p. 255.

[302] *Types of Mankind*, pp. 344, 349.

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Indian grave-yard, among anterior fossilized relics of extinct genera discovered with it,— some of which, together with the human fossil, may at any time be beheld in the first case of vertebrated remains in the lower room of the museum of our Academy. "Componere lites," in matters of science, or for the increase of knowledge, wherein *agitation* really becomes the life and soul of progress, is a thing repugnant to my instincts. It remains (*constat*), therefore, that there is but one human fossil bone in the world; and that the causes of its fossilification, not its fossilized state, are disputed.

This, thus far unique, instance eliminated from the argument—all human remains hitherto discovered in alluvials, caverns, or osseous strata, are HUMATILE; and so are Lund's *callithrix primœvus* and *protopithecus*, with other past simiadæ found in South America, of which the genus is not merely identical with the *simiæ platyrhinæ* belonging to this continent, and wholly wanting elsewhere, but, what is extremely noteworthy, their "species" is very nearly the same[303] as that of each of their succedaneums skipping about Brazilian forests at the present hour. There is a solidarity, a homogeneity here, of circumstances between monkeys and man, not to be contemptuously overlooked.

Thus much established, is it, I would ask, through mere fortuitous accident that the Guadaloupe human skeletons, equally humatile with Lund's American *simiæ*, should, by Mantell,[304] be assimilated to the Peruvian, or Carib, indigenous races of America, seeing that they present "similar craniological development?" or that Moultrie,[305] finds in the skull of one of them, brought by M. L'Héminier to Charleston, S. C., "all the characteristics which mark the American race in general?" Must we attribute, as Bunsen has it, to "the devil, or his pulchinello, accident,"[306] a coincidence, that, in the same deposits with humatile American *simiæ*, Lund should discover skulls of humatile American man;[307] "differing in nothing from the acknowledged type?" Or, finally, is mere chance the cause that, on this continent, by naturalists now recognized to be the oldest in age, if among the newest in name, there should be

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303 "Referable to four modifications of the existing types of quadrumana"—says MANTELL (*Wonders of Geology*, ubi supra, I, pp. 258–9).

304 *Op. cit.*, I, pp. 86–90.

305 MORTON, *Physical type of the American Indians.*

306 *Philosophy of Universal History*, (supra, note 16) I, p. 4.

307 MORTON, (*Types of Mankind*, pp. 293, 350), *Proceedings Acad. Nat. Soc.*, 1844:— LUND himself (*Lettre à M. Rafn*, 28 Mars, 1844— apud KLEE, *Le Déluge*, p. 328) says— "La race d'hommes qui a vécu dans cette partie du monde, daus son antiquité la plus réculée, était, quant à son type général, la même qui l'habitait au temps de sa découverte par les Européens."

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found, in addition to Mantell's and Moultrie's humatile Caribs or Peruvians, as well as to Lund's humatile Brazilian crania, 1st — Meigs's humatile South-American human bones;[308] 2d — Agassiz's Floridian "fossil remains" of human jaws and foot, embedded in a conglomerate at least "10,000 years" old;[309] and 3d—Dickeson's *fossil* fragment of a human pelvis; unique, as such, in the world?

It is true that, except in the above chronological estimate of Prof. Agassiz (which falls very far below the geological realities of coral-formed Florida), the antiquity of these specimens eludes measurement; but, the continent of America is older than that of Europe, where Chev. Bunsen (ubi supra) insists upon more than 20,000 years since the advent of a single human pair upon earth. It is, likewise, infinitely more ancient than the Nilotic alluvials of Egypt; where, as before shown, our *monuments* go back, at the lowest figures (IIId dynasty), some 53 centuries; without yielding any *chronological* boundary to anterior human occupancy. Hence, upon these premises, there exists no arithmetical limit to human existence in America; while it is a remarkable feature among the circumstances, that, here, humatile men and humatile *simiæ* occupy the same coetaneous "platform" — the former always *Indians*, the latter ever *platyrhinæ;* both being, as to their "province of creation," Americans, and American only — neither types having yet turned up elsewhere. And, in this comparison of simple facts, nothing has been said about the possible antiquity of the "mounds of the West;[310] nor in respect to those antique monuments, concerning which the same qualified explorer is clearing away mystifications, in Central America. Being modern, in comparison with palæontological subjects, the latter may be touched upon in a subsequent place.

Such, in brief, is the antiquarian state of matters on the cis-Atlantic side. As successor in various geological phenomena, Europe beckons for some trans-Atlantic inquiries.

Pictet,[311] after giving a succinct account of researches upon fossilized human bones, concludes:

"1st. Man did not establish himself in Europe at the commencement of the diluvian epoch, &c. * * *

"2d. Some migrations probably took place during the course of this diluvian period. The first men who penetrated into Europe per-

[308] Now in the Acad. Nat. Soc. — Cf. MEIGS, *Account of some human bones*, &c. — *Trans. Amer. Philos. Soc.*, Philadelphia, 1830; III, pp. 286–91.

[309] *Types of Mankind*, p. 352.

[310] SQUIER, *Ancient Monuments of the Mississippi Valley;* 1848, 4to, pp. 304–306 :—*Types of Mankind*, pp. 287–8.

[311] *Traité de Paléontologie*, Paris, 8vo, 2d edition, 1853; pp. 145–54, 154.

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haps still saw the cavern-bears, the elephants, and the contemporaneous (animal) population. Some among them were victims of the same inundations."

Ten years of reflection upon newer evidences had led this judicious palæontologist to consider the coetaneousness of mankind, in Europe, with some extinct genera of mammifers (*ursus spelæus*, &c.), less improbable than when he first published in 1844.

"Nevertheless," with Maury,[312] "let us not hasten to conclude. The study of ethnology tends to make us think that, at first, the human race was very sparsely sown upon the globe. Its numerical strength has not ceased to increase from the most ancient historical times; whilst, for many animal races, the progression has been inverse. At the time when civilization was yet unborn, when, constrained to live by the chase and by fishing, man wandered as does still the North American Indian, or the indigenous native of Australia, a thousand destructive causes tended towards his destruction, and the difficulty of subsisting rendered increase of population very slow. [The great development of population begins but with the domestication of herbivorous animals[313] and the culture of cereals.] If the first infancy of humanity, which was of very many thousands of years, corresponds to the tertiary period, there can then have existed but a very restricted number of tribes, spread over perhaps those parts of Asia which the geologist has not sufficiently explored. * * * Let us here remember that geologists comprise, under the name of *tertiary*, all the layers (*couches*) which have been deposited since the last secondary formation, that of the chalk. The tertiary systems serve, in consequence, as points of junction between the present animal kingdom and the animal kingdom past. For, the most ancient eocene deposits contain remains but of a little number of secondary species, and these species comprise a great number of genera still existing, associated with particular types."

In confirmation of which we may refer to M. de Serres's remark,[314] that our domestic animals scarcely exist at all in tertiary deposits, although they abound in the later cave and diluvial; wherein, being found with human remains, it seems probable that man had already reduced some of them to domesticity. So, again, in the caverns of Gard, there are two distinct epochs of humatile man; first, the lower

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[312] *Op. cit.* (supra, note 289), pp. 42, 40: — LEONHARD (apud KLEE, *Déluge*, pp. 323–6), sustains the coetaneousness of man with extinct genera of animals in European caverns, with several examples.

[313] See also my remarks on the evidences of early domestication of Egyptian animals, in *Types of Mankind*, pp. 413–14.

[314] *Op. cit.* (supra, note 132), pp. 61–2, 149.

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stratum, when he appears to have been a comrade of the extinct *ursus spelæus;* and, subsequently, the upper, when he was contemporary with present living genera.

We come now to fresh corroborations of Boucher de Perthes's discoveries of human *industrial remains* in French diluvial drift, cited by Usher.[315] They were considered sufficiently important by the *Académie des Sciences* to warrant Dr. Rigollot's nomination as correspondent of the Institute. Unhappily, this took place on the 4th of January, 1855, the day of his demise: but his work survives.[316] In company with M. Buteux, Member of the French Geological Society, and M. E. Hébert, Professor of Geology at the superior normal school of Paris, Dr. Rigollot explored the new excavations at St. Acheul and St. Roch;—the former contributing a "Note sur les terrains au sud d'Amiens," wherein he says—"The banks of silex and of soil which cover them [these remains] are considered as diluvian by nearly all geologists; but, according to eminent *savans*, the authors of the geological map of France, they form part of medium or upper tertiary lands."[317]

"Thus it is well established," adds Rigollot,[318] "and I repeat it, the objects which we are going to describe, are found neither in the argilo-sandy mud (*limon*), or brick-earth that forms the upper stratum; nor in the intermediary beds of clay more or less pure, of sands and small pebbles, of which a precise notion may be had from the detailed sections joined to this memoir; but they are met with, *exclusively, in the true diluvium;* that is to say, in the deposit which contains the remains of animal species of the epoch that immediately preceded the cataclysm through which they were destroyed. There cannot be the slightest doubt in this respect." These organic remains consist of *succinea amphibia, helix rotundata, elephas primigenius, rhinoceros tichorinus, cervus somonensis, bos priscus, equus* (smaller than the common horse), *catillus Cuvieri,* and *cardium hippopeum.* Among these, some 400 industrial relics were found, during six months—in majority of silex, wrought in the same style with singular skill—some apparently hatchets, others poniards, knives, triangular cones; besides little perforated globes, seemingly beads for necklaces and bracelets, generally of calcareous stone, rarely of flint. Finally, these vestiges of primordial humanity were unaccompanied by any remains of pottery, or other manufactures of Gaulish later times and art.

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[315] *Types of Mankind,* pp. 353–72.

[316] Rigollot, *Mémoire sur des Instruments en Silex trouvés à St. Acheul, près d'Amiens, et considérés sous les rapports géologique et archéologique,* Amiens, 8vo., 1854; with 7 plates.

[317] *Op. cit.,* pp. 32–3.

[318] *Op. cit.,* p. 14, and *passim.*

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Until such well-attested facts be overthrown (how, it yet cannot be conceived), science must accept the existence of *mankind* in Europe during ages anterior to that cataclysm which rolled reliquiæ of their handicraft, together with bones of now-extinct genera, amidst the general "TOHU VE BOHU" of French *diluvial drift.*

Of what race were the men[319] whose manufactures were thus destroyed?

Certainly not Caribs, Peruvians, or Brazilians, we might answer *à priori.* The humatile vestiges of such belong exclusively to the American continent; together with platyrhine simiæ of their common zoological province. In the tertiary formations of Europe only fossil catarrhine monkeys are found; of which, later species, now living, have receded into Asia and Africa. It would have been a violation of the usual homogeneity, well established,[320] between extinct genera and those now alive upon each continent, were we to find types of humatile man incompatible, in craniological organism, with the existence of quadrumana in their midst. That is to say, monkeys in Asia and Africa now reside within the same zones (See *Chart of Monkeys* further on) as the lower indigenous races of mankind,—negroes, Hottentots, Andamanes, and various inferior Hindostanic and Malayan grades: and one might reason (*à priori* always) that, in primordial Europe, as was the case in primordial America, and as are the analogous conditions of present Africa and Asia, fossil remains of quadrumana should, in some degree, harmonize with a lower type of humatile bimanes than those now living there, since their precursors, the monkeys, have abandoned the European continent.

My valued friend Mr. Kenneth R. H. Mackenzie (translator of Lepsius's Letters from Egypt, and author of many works), to whose extensive range of literary knowledge I have been often indebted for information, read me some passages of a late German work.[321] Among them is this remark—"In 1833, there were actually found in the caverns of Engis and Engihoul, near Liege (Lüttich), in the limestone rock, even human bones and crania, which indeed belonged to the *negro* race."

Supposing no exaggeration, or error, in this strange circumstance, it would be analogous to the now-altered geographical distribution

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[319] Observe the language of Prof. Agassiz (*supra*, "Prefatory Remarks").

[320] Cf. the remarks of De Strzelecki (*Phys. Description of N. S. Wales and Van Diemen's Land*, 1845) on the organic remains of New Holland, or Australia, yielding only fossils of *Marsupials*, and other animals peculiar to that zoological province.

[321] *Ethnologie, Anthropologie, und Staats-Philosophie;* Ester thiel, "Anthropognosie," Marburg, 1851: p. 40:—referring to Schmerling's *Recherches* for authority.

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of negro-races and the monkey-tribes; neither of which have inhabited Europe since her history dawns, but both being now-a-days fellow-residents, from incalculable ages, in Africa.

That the human crania referred to must offer some singularly prognathous features, is evident from the following comments of Marcel de Serres:[322]

"The (human) heads discovered in divers localities of Germany (in caves, or in ancient diluvial deposits) have nothing in common with those of the present inhabitants of this country. Their conformation is remarkable, in that it offers a considerable flattening of the forehead, similar to that which exists among all savages who have adopted the custom of compressing this part of the head. Thus, certain of these skulls, and for instance those found in the environs of Baden in Austria, presented strong analogies with those of African or negro races; at the same time that those from the banks of the Rhine and the Danube offered some great resemblances with the crania of Caribs or with those of the ancient inhabitants of Chili and Peru." Those at Liege "approach the Ethiopian type. It suffices, in order to convince one's self of this, to remark the frontal region of their cranium, which is triangular, and not semi-circular as it is in the Caucasian race. Thus, according to these facts, the transportation of the numerous débris of animals observed in these subterranean cavities, must have been contemporaneous with the existence of this principal variety of mankind, which had not before been encountered anywhere at the *humatile* stage."

"These events [the filling up of caverns with remains of extinct and living genera] are so recent, that, according to the observations of M. Schmerling, one meets, in the caves of Belgium, with human remains of the Ethiopian race, mixed and confounded with *débris* of animals whose races seem to be altogether lost. (This observation confirms, otherwise, that made by M. Boué, in the environs of Baden, in Austria. This naturalist there discovered, in the diluvial deposits, human crania which offered the greatest analogies with those of African or negro races). Thus, at the epoch of the filling up of these caverns, not only did man exist, but some great varieties of the human species must already have been produced.

"Perhaps those who reject the unity of the human species may wish to invoke this fact in favor of their system; because it seems to prove that the different races of our species remount to the very highest antiquity. But, whilst admitting this conclusion to be exact, one must not leave out of sight that the question of the unity of the

[322] *Op. cit.*, (supra, note 132) p. 223.

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human genus depends, before all, upon the sense that is attached to the word *species*."

The latest account of verifications is that of M. Victor Motschoulsky,[323] who visited Liege, where, at the University, Prof. Spring showed him these human palæontological relics, described previously by Schmerling. They had been discovered in the caves of Gouffontaines and of Chauquière, in the neighborhood of Liege and Angers.

"They are composed of different pieces of the skull, of teeth and hands of man mingled with remains of the *ursus spelæus*, some pieces of *hyena*, of large *felis*, of *stag*, *horse*, &c. The pieces of human skull show that the forehead was very short and much inclined; which, according to Gall's phrenology, would make one suppose an individual and a race such as middle Europe never had, at least since historical times. On this occasion, M. Spring observed to me that the discovery of Schmerling was not isolated; and that subsequently, he himself had found many more analogous pieces in a cavern situate between Namur and Dijon. This cave is called *le trou Chauvau*, and is found at 200 feet above the surface of the water of the Meuse, in calcareous rock. The bottom presents an enormous heap of bones of large ruminants, carnivora, and of man, in a limestone softened by infiltration. In the earth, all these objects are soft and extremely friable; they are compressible and break very easily; but exposed to the air they soon harden, and present a complete calcareous petrifaction. It seems that this cavern contains a great number; and with minute and regular researches, one would certainly get out of it human crania and perfect skeletons. The samples which I saw, at M. Spring's, present two upper parts of a skull, jaws with teeth, and several bones of hands and legs. One of these skulls, according to the opinion of this savant, seems to have belonged to a child of seven years, and the other to one of twelve. The form of these crania approaches more that of negroes, and not at all to present European races. The lower jaw is squarer and broader, the inferior edge more rounded, and not salient as in our European races: the occipital bone is higher; the lateral sides of the skull much more flattened and more compressed than in any of those of our living races. In the same palæontological formation are found a flint hatchet and a few arrowheads," &c.

The latter circumstance, but for subsequent discoveries of Boucher, Rigollot, and the Abbeville-geologists, might have been adduced in order to lessen the antiquity of these humatile remains; but being

[323] *Extrait du Bulletin de la Société Impériale des Naturalistes de Moscou*, Tome xxiv. 1851;—Letter to the Secretary, dated "Liège, ce 16 Fevrier, 1851;" pp. 32–4. I owe communication of this pamphlet to my friend Dr. John Leconte, of our Acad. Nat. Sci. Philada.

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also exhumed from the diluvial drift, rude flint instruments are no longer criteria for depressing the age of bones found with them. Primordial man was everywhere a hunter: his teeth and stomach are those of an omnivorous genus: his instincts still continue to be essentially bellicose.

This is confirmed, whilst I am writing, by the following interesting account of proceedings among men of science in England—which is inserted as received:

"A paper has also been read, in this section, by Mr. Vivian, of Torquay, on "the earliest traces of human remains in Kent's Cavern, especially flint-knives and arrow-heads, beneath the stalagmitic floor." The peculiar interest of this subject consisted in its being the link between geology and antiquities; and the certainty afforded, by the condition in which the remains are found, of their relative age,—the successive deposits being sealed up *in situ* by the droppings of carbonate of lime, which assume the form of stalagmite. The sources from which the statements in the paper were obtained, were principally the original manuscript memoir of the late Rev. J. M'Enery, F. G. S., which is deplored by Professor Owen, in his *Fossil Mammalia*, and by other writers, as lost to science; but which has been recovered by Mr. Vivian, and was produced before the section: also the report of the sub-committee of the Torquay Natural Society, and his own researches.

"We have not space for the interesting statements contained in the paper, or the extracts which were read from the manuscript, beyond the following brief summary of Mr. Vivian's conclusions, which were mainly in accordance with those of Mr. M'Enery. The cavern is situated beneath a hill, about a mile from Torquay and Babbecombe, extending to a circuit of about 700 yards. It was first occupied by the bear (*ursus spelæus*) and extinct hyena, the remains of which, the bones of elephants, rhinoceros, deer, &c., upon which they preyed, were strewn upon the rocky floor. By some violent and transitory convulsion, a vast amount of the soil of the surrounding country was injected into the cavern, carrying with it the bones, and burying them in its inmost recesses. Immediately upon its subsidence, the cavern appears to have been occupied by human inhabitants, whose rude flint instruments are found upon the mud beneath the stalagmite. A period then succeeded, during which the cavern was not inhabited until about half of the floor was deposited, when a streak containing burnt wood and the bones of the wild boar and badger was deposited; and again the cave was unoccupied, either by men or animals,—the remaining portion of the stalagmite being, both above and below, pure and unstained by soil or any foreign

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matter. Above the floor have been found remains of Celtic, early British and Roman remains, together with those of more modern date. Among the inscriptions is one of interest as connected with the landing of William III. on the opposite side of the bay: 'W. Hodges, of Ireland, 1688.'

"In the discussion which followed, and in which Sir Henry Rawlinson, the Secretary of the Ethnological Society, and others, took part, the position of the flints beneath the stalagmite seemed to be admitted, although contrary to the generally received opinion of the most eminent geologists,—thus carrying back the first occupation of Devon to very high antiquity, *but not such as to be at variance with Scriptural chronology:* [!] the deposit of stalagmite being shown to have been much more rapid at those periods when the cavern was not inhabited, by the greater discharge of carbonic acid gas. Without attempting to affix with any certainty more than a relative date to these several points, or forming a Scriptural interpretation upon natural phenomena, which, as Bacon remarked, too often produces merely a false religion and a fantastic philosophy, Mr. Vivian suggested that there was reason for believing that the introduction of the mud was occasioned, *not by the comparatively tranquil Mosaic Deluge, which spared the olive and allowed the ark to float without miraculous interposition*, but by the greater convulsion alluded to in the first chapter [I presume this to be a misprint, for no Hebraist can find such coincidence in the Text] of Genesis, which destroyed the pre-existing races of animals—most of those in this cavern being of extinct species—and prepared the earth for man and his contemporaries."[324]

There is yet another rather recent rumor of certain discoveries, reported by Professor Karnat, of human skulls mingled with osseous vestiges of the mammoth period,[325] in the Suabian Alps; but I have not been able to obtain details. Nevertheless, whilst the antiquity of man in Europe begins to be borne out on all sides, it is to be regretted that these so-called negroid crania do not yet appear to have been scrutinized by special cranioscopists; who would probably detect, in their prognathous conformation, not a *negro* type, but that of some races of man of lower intellectual grade than occupy Europe at this day. In the scale of progression, monkeys should, in Europe also, have been precursors (as they were in America) of inferior races of mankind; such as those we still encounter being confined within the same tropical zones now-a-days co-inhabited by the *simiadæ*.

[324] London "Times," Aug. 12, 1856—Brit. Assoc. Adv. Science, Cheltenham, Aug. 9.
[325] *Proceedings of the German Scientific Association;* held at Tübingen, 1854.

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It was not, however, from ratiocination upon such data, which are later sequences of palæontological revelations obtained only since 1837, that the greatest champion of the "unity of the human species" (at whose equivocal dictum trembling orthodoxy clutches like sinking mariners at their last plank) draws his conclusion that our first parents were of the negro type; indeed, logically speaking, that "Adam and Eve" must have appertained to that same "bevy of black angels (caught) as they were winging their way to some island of purity and bliss here upon earth, and reduced from their heavenly state, by the most diabolical cruelties and oppressions, to one of degradation, misery, and servitude."[326]

In 1813, Dr. Prichard wrote:[327] "If there be any truth in the above remarks, it must be concluded that the process of Nature in the human species is the *transmutation* of the characteristics of the negro into those of the European, or the evolution of white varieties in black races of men. * * * This leads us to the inference that the primitive stock of men were *negroes*, which has every appearance of truth. * * * On the whole, there are reasons which lead us to adopt the conclusion that the primitive stock of men were probably negroes; and I know of no argument to be set on the other side."

With regard to Prichard's now-forgotten view, that "the process of Nature" is the "transmutation" of *species*, nothing can be less historically founded. To the facts established in our former work,[328] and others in this essay, I would here add the authority of the ablest polygenist, no less than one among eminent comparative anatomists of the Doctor's time, viz., Desmoulins:[329] "The species of the same genus, and with stronger reason those of different genera, are therefore unalterable throughout all those influences which heretofore were regarded as the ever-producing and ever-altering causes of them. It is, then, the PERMANENCE OF TYPE, UNDER CONTRARY INFLUENCES, which constitutes the *species*. That which is called 'varieties' bears only upon differences of size and color: they are but the accidental subdivisions of the species." Confirming it by a later authority, Courtet de l'Isle,[330] who after citing, like Morton,

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[326] BLEDSOE, *Liberty and Slavery*, Philadelphia, 12mo, 1856; p. 54. Dr. Livingstone, however, according to newspaper report, has since found such angelic negroes in the centre of Africa. "Nous verrons."

[327] *Researches into the Physical History of Man*, London, 8vo, 1st ed., 1813; pp. 233–9. This curious chapter is expunged from all later editions of his works; nor did the learned Doctor ever refer, in them, to his early theory!

[328] *Types of Mankind*, pp. 56, 81, 84, 465.

[329] *Histoire Naturelle des Races Humaines du nord-est de l'Europe, de l'Asie boréale, et de l'Afrique australe*, Paris, 8vo, 1826; p. 194.

[330] *Tableau Ethnographique* (supra, note 1 in Chap. II), pp. 9–10, 67–76; Pl. 26, 27, 31, 32

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Nott, and myself, the testimony of Egyptian monuments to prove that *types* have not altered in 4000 years, continues: "These facts are, to my eyes, of the utmost importance, because they tend to fix the opinion of those who might be tempted to believe that races undergo, in the course of ages, such modifications as that the negro, for instance, might be derived from the white man. All inductions drawn from archæology give to this opinion the most splintering denial. The idea of the permanence of races is justified by all known facts. Now, remarkable circumstance! in order that one could admit the variability of types, it would require that, for three or four thousand years, if not a radical change in races, at least a *tendency towards change*, should have been observed; whereas the facts, far from demonstrating any tendency of this kind, prove, on the contrary, that the races of to-day are perfectly identical with those of by-gone ages."

Discarding, therefore, as non-proven, such deduction as the existence of *negro* races in early Europe, there are other circumstances which favor the probability that, even subsequently to humatile man, inferior types of humanity preceded the immigration into (or rather, perhaps, inferential occupancy of) Scandinavia, Germany, France, Spain, and Italy, by high-caste Indo-Germanic races. See philological inductions of Maury [*supra*, p. 43].

I have read somewhere, though my note of the work is mislaid, that Prof. Retzius has met, in the peat-bogs and oldest sepulchres of Northern Europe, with skeletons of a Mongolic or hyperborean (Lapp?) type, of an age anterior to the cairns and barrows wherein he and Nilsson,[331] recognize those of *brachy-kephalic* and *dolicho-kephalic* races—these last being, to some extent, precursors of the historical Norsemen, Danes, Swedes, Jutes, Saxons, &c., scattered along the western Baltic coasts.

De Gobineau,[332] notwithstanding some slight inadvertences due to velocity of thought and composition, joined to the use of the term "finnique" (Finnish) in senses which I fancy to be historically untenable,[333] has certainly brought out some startling phenomena on the "primitive populations of Europe." To his brilliant pages I must refer for sketches of early Thracians, Illyrians, Etruscans, Iberes, Galls, and Italiots. They are painted by a master-hand.

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[331] *Skandinaviska Nordens Urinvånare*, &c., Christianstad, 4to, 1838; Pl. D, pp. 1–13.

[332] *Inégalité des Races Humaines*, Paris, 8vo, 1855; III, *passim*, Chapters I–IV, and pp. 2, 19, 28.

[333] As Uralians in geographical origin, no *Finns* could have been in primitive France. Cf. the authorities in DESMOULINS, *Races Humaines*, pp. 53–5, 154:—also, KLAPROTH, *Tableaux*, p. 234.

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The upshot is, that, in common with Gérard,[334] another polygenist, progressive ethnology must, sooner or later, face the question,—whether primordial Europe was not inhabited by some indigenous *Europeans;* long before the historical advance, westwards (whence?), of those three groups of proximate races denominated Celtic, Teutonic, and Sclavonian? De Brotonne[335] had prepared us for the conjecture, that the above triple migration had overlapped, as it were, a pre-existent population. Kombst and Keith Johnston[336] have beautifully illustrated the secondary formations of humanity in the British Isles; of which Wilson[337] indicates much material for inquiries into the primary. Mr. Thomas Wright,[338] and other distinguished antiquaries in England, by determining the cemeteries and artistic vestiges of the Anglo-Saxon period, facilitate our apprehension of other remains to these anterior or posterior; while M. Alfred Maury[339] suggests, to national archæologists, the true processes through which to recover and harmonize multitudinous fragments of some ante-historical races of France.

Reasoning by analogy, it would (now that we are beginning to understand better some of the ancient superpositions of immigrant, or Allophylian, races, in other continents, upon aboriginal populations of the soil) become somewhat exceptional were Europe not to present exemplifications of that which, elsewhere, is rising to the dignity of a law. The *Cagots*, the *Coliberts* of Bas-Poitou, the *Chuatas* of Majorca, the *Marans* of Auvergne, the *Oiseliers* of the duchy of Bouillon, the *Cacous* of Paray, the *Jews* of Gévaudan, &c., whose prolonged existence, and sometimes whose historical derivation, are discussed with so much erudition by Michel,[340] prove, that all *exuviæ* of such unstoried races of man are, as yet, neither obliterated nor fully enumerated; even in the World's most archæologically-prepense community.

Vain, at the same time, must be any effort to search for such

[334] *Histoire des Races Primitives de l'Europe, depuis leur formation jusqu'à leur rencontre dans la Gaule*, Bruxelles, 12mo, 1849; p. 389.

[335] *Filiations et Migrations des Peuples*, Paris, 8vo, 1837.

[336] *Physical Atlas*, new ed., Edinburgh, fol., 1855; Pl. 33, and pp. 109–110, "Ethnographic Map of Great Britain and Ireland."

[337] *Archæology and Prehistoric Annals of Scotland*, Edinburgh, 8vo, 1851; pp. 168–87, 695–9.

[338] *Anglo-Saxon Antiquities* (Memoirs of the Hist. Soc. of Lancashire and Cheshire), Liverpool, 8vo, 1855; pp. 38–9.

[339] *Questions relatives à l'Ethnologie Ancienne de la France*, (Extrait de l'Annuaire de la Société Impériale des Antiquaries de France pour 1852), Paris, 18mo, 1853; pp. 22, 40–1.

[340] *Histoire des Races Maudites de la France et de l'Espagne*, Paris, 8vo, 1847; 2 vols. *passim.* See also PRICHARD, *Nat. Hist. of Man*, 1855; I, pp. 258–74; for other "Aborigines."

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petty relics of lost nations in the terse nomenclature, or within the geographical area covered by, the Xth chapter of *Genesis*. No ethnic indications, in this ancient chorograph, carry us, northwards or westwards, beyond the coasts of the Euxine, Archipelago, and Mediterranean (not even occidentally as far as Italy; except in the doubtful location of *Tarshish*, TtRSIS, — Tartessus in Spain? or Tarsus in Cilicia?[341] A document which, at every explanatory gloss and in its local tendency of sentiment, betrays *Chaldœan* authorship; and whose utmost antiquity of compilation cannot, without violating exegetical rules, be fixed earlier than Assyria's empire at the apogee of its might — being, I think, a sort of catalogue of Shalmanassar's, or similar monarch's, satrapies — would be rejected, at this enlightened day, as apochryphal, did it exhibit phenomena foreign to its natural horizon of knowledge. But it does not. Taking its first editorship at between the 7th and 10th centuries B. C., its principles of projection are in accordance with historical circumstances; which certainly were not Mosaic.

"It is thus," observes Courtet de l'Isle,[342] "that Moses could not have spoken of Turkish, Mongol, or Toungouse populations, which in his time were still concealed from view in the most oriental part of Asia. The Chinese, especially, constituted already a very ancient society, at the time to which the date of the Hebrew books may be referred; but, at no epoch whatever, do the traditions of Western Asia embrace events relating to the Chinese." The same touchstone is applied by this skilful polygenist to the Corœans, hyperboreans, Americans and negroes; about whom he says — "In the posterity of Kham [which is merely *Khàme*, Egypt] are particularly comprised the indigenous populations of the southern part of the ancient world: it is a swarthy (*noirâtre*) race, which it would be erroneous to compound with the negro type. Everything, in fact, attests that negroes are not contained in the genealogy of Moses."

If, by way of example, for ethnic superpositions of higher types over an autochthonous group of races, we appeal to Hindostàn, Prichard's own chart,[343] together with the posthumous edition of his

[341] *Types of Mankind*, pp. 477–9:—BARKER, *Lares and Penates, Cilicia and its Governors*, London, 8vo, 1853; pp. 210–11. The determination of Tartessus, as *Tarshish* whence apes (*Kophìm*, II Kings, X, 22) were exported, cannot be decided through Zoology. DE BLAINVILLE (*Ostéographie*, pp. 28–49) considers the species to have been the *Pithecus ruber* of Ethiopia: in which case Tarshish must have lain, like Ophir, down the Red Sea. GERVAIS (*Mammifères*, p. 76) prefers the *magot* of Barbary; and removes the difficulty I suggested (*op. cit.* 479) of "cocks and hens," by proposing *ostriches*. QUATREMÈRE (*Mémoire sur le Pays d'Ophir*, Mém. de l'Acad., Paris, 1845, pp. 362–75) thinks they were *perroquets*.

[342] *Tableau ethnographique du Genre Humain*, Paris, 8vo, 1849; pp. 73–4, 69.

[343] *Six ethnographical Maps, with a sheet of Letterpress*, London, fol., 1843; Plate 1st, "Asia," Nos. 10, "*Aboriginal mountain-tribes of India.*"

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last work,[344] furnishes many instances of surviving aborigines. These have been more copiously and critically examined by Lieutenant-General Briggs,[345] whose conclusions are the following:

"1. That the Hindus [*i. e.* the Aryian, or *white* people's immigrations] entered India from a foreign country, and that they found it pre-occupied by inhabitants.

2. That by slow degrees they possessed themselves of the whole of the soil, reducing to serfage those they could retain upon it.

3. That they brought with them the Sanscrit language, a tongue different from that of the aborigines.

4. That they introduced into the country municipal institutions.

5. That the aborigines differ in every respect from the Hindus.

6. Lastly; that the aborigines throughout India are derived from one common source."

Allowing this last conclusion to be correct, it becomes positive that the source of this aboriginal group of races in Hindostàn must be radically distinct from that of the later Sanscritic intruders,—whose earliest monuments, the *Vedas*, trace them backwards to Sogdiana, Bactriana and Persia, as their own primordial homesteads, where their characteristics seem to blend into races of the *Arian* group. Briggs enumerates, among extant indigenous tribes of India:—

The *Bengies* in Bengal,	the *Dhanuks* in Behar,
" *Tirhus* in Tirhut,	" *Dhers* in Sagor,
" *Koles* in Kolywara and Kolwan,	" *Minas* in Ambír,
" *Malas* in Malda and Malpur,	" *Ramusis* in Telingana,
" *Domes* in Domapur, &c. &c.,	" *Bedars* in Dekhan,
" *Mírs* in Mírwara,	" *Cherumars* in Malabar,
" *Bhils* in Bhilwara and Bhilwan,	" *Curumbas* in Canara,
" *Mahars* in Maha Rastra (Mahratta),	" *Vedars* in Travancore,
" *Mans* in Mandesa,	" *Marawas* at the South,
" *Gonds* in Gondwara or Gondwana,	" *Kallars* in Tinevelly,
" *Garrows* in Bhagalpur,	" *Pullars* in Tanjore,
" *Sonthals* in Cattack,	" *Pallies* in Arcot,
" *Bhars* in Gorakpur,	" *Chenchis* in Mysore,
" *Cheris* in Ghazipur,	" *Chenciwars* of Telingana:

[344] *Natural History of Man* (supra, note 172,) I, pp. 248–57.

[345] *Two lectures on the aboriginal race of India, as distinguished from the Sanscritic or Hindu Race*—R. Asiatic Soc., London, 8vo, 1852; pp. 6.—Compare *A Sketch of Assam, with some account of the Hill Tribes*, by an officer; London, 8vo, 1847, *passim*, for many other aborigines on the confines of Indo-China;—and HOOKER (*Himalayan Journals*, London, 8vo, 1854; I, pp. 127–41), for the *Lepchas* &c., and (II, pp. 14) for the *Harrum-mos* and others. For the affinities or divergencies of *Dravirian* idioms in relation to other groups of tongues, the reader will be unable to find more masterly elucidations than in my friend M. MAURY'S Chapter I, pp. 52–5, 74–6, 84, *ante*.

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besides the *Kamiwars, Yelmiwars, Barki, Dondassi, Bandipote, Talliar,* and others.

This arid catalogue of names indicates the number and variety of these seemingly-proximate races. With the exception of, here and there, more or less defective, sketches of a Garrow, a Tuda, a Naga, a Siahpush, a Bhot'iya, or a Ceylonese, I have seen no authentic portraits of Hindostanic aborigines whence ideas about their several characteristics can be obtained. As for their *crania*, "ce n'est pas le genre" among Anglo-Indians to preserve, for science, those they cut off; such men as Hodgson of Nepaul, and Cunningham of Ladàk,[346] being honorable exceptions. A succinct *résumé* of aboriginal families of mankind known to exist within the "East Indian Realm" of zoology, has been compiled from the latest sources, with his usual ability, by Maury.[347] Space restricts me to reiteration of the lament, over the ethnological supineness of those who ought to fill *scientific* collectorships in India, implied in his remarks:—"These indigenous tribes, of which the *débris* still wander in the north-west of America, those insular septs that navigators have encountered in Polynesia, Oceanica, and Indian Archipelago—of such, Asia even at this day yet offers us the pendants. At an ancient epoch, which it is impossible rigorously to assign, the centre and the south of this part of the world were inhabited by those savage races that Hindoo civilization has pushed away before it, and which Chinese society has ejected toward the southern extremities of its empire. It is in the almost impenetrable defiles, which separate Hindostàn from Thibet and from China, wherein these disinherited populations have sought refuge. There they subsist still; and there they will continue to subsist until English colonization [as in the pending case of the *Santals*, 1855–6] shall have forever blotted them out from the soil. It is with races of men as with races of animals, which Providence creates, and afterwards abandons to destruction. * * * Who can count how many races have already disappeared; what populations, of which we ignore the history, the very existence, have quitted our globe, without leaving on it their name, at least, for a trace!"

Only since 1850, through Arnaud and Vayssière,[348] have we heard of the *Akhdàm* (servants) of Southern Arabia; probably last degraded relics of the aboriginal Cushite, or Himyārite, stock; to be added to

[346] *Ladàk, physical, statistical and historical, with notices of the surrounding countries*, London, 8vo, 1854; pp. 285–312; Plates 10–11, 13–18, 22–24.

[347] *Les Populations Primitives du Nord de l'Hindoustan*—Extrait du *Bulletin de la Société de Geographie*; Paris, 1854; p. 39.

[348] "Les *Akhdàm* de l'Yémen, leur origine probable, leurs mœurs"—*Journal Asiatique*, Paris, April, 1850; pp. 380–2.

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those more favorably known at Màreb and Zhaffâr as speakers of *Ehkîli*.[349] "For the *facies*, these Akhdàm differ much from the Arab, who dwells alongside of them; possessing, on the contrary, the strongest resemblance to the Abyssinians and the people of the *Samhar* [littoral Abyssinians on the Red Sea]; who, according to M. Lefèvre (*Voy. en Abyss.*), 'present the greatest analogy with the Hindostanic race.'" These *Akhdàm* are pariahs, reputed "unclean" by the Arabs, who despise their four castes with inveteracy. The color of their skin is reddish, like the Himyarites (from *dhmar*, red), and their congeners the Habesh; being entirely different to the lighter complexions of their lords, the Semitic Arabs—although both types have, from immemorial time, resided in the same climate.

But, amid illustrations that spring up on every side to fortify my argument of aboriginal populations, I must refrain from further notice of more than one or two.

M. D'Avezac, and other ethnologues who have studied *Guanche* traditions and Portuguese accounts of the conquest of the Canary Isles, prove satisfactorily that, despite such furious massacres, the *women* were saved in large numbers by the invaders. The result was naturally an amalgamation, between the female Guanches and the Portuguese settlers, that still underlies the present population,[350]—into which, importations from Africa have since copiously infiltrated Nigritian blood of many varieties. Now, the same combination of circumstances occurred in Cuba.[351]

Discovered by Columbus, on the 18th October, 1492, this Island, according to his Journal, contained a somewhat civilized people, timid and simple, already possessors of the *dog*; who were "neither black nor brown, but of the color of Canary-islanders, with women whiter still." They lived in great fear of the Caribs, from whom they differed in almost every characteristic;[352] and seem to have been of the same family as the *Ygneris* of Haiti, and other isles of the

[349] *Types of Mankind*, pp. 489–92. The discoverer, my old friend and colleague in Egypt for many years, M. Fulgence Fresnel, is now no more. Bagdad, last spring, was the tomb of this enthusiastic orientalist,—in Arabic studies never surpassed.

[350] The only specimen of this mixed stock that I have seen, was a so-called mulatto, exceedingly robust and intelligent, native of the Canaries, by name Narcisso; who, in 1851, flourished at Bangor, Maine; as my friend A. P. Bradbury, Esq., of that ilk, may remember. Narcisso's red complexion and muscular vigor completely bore out the southern specimens of Dr. Nott (*Types of Mankind*, p. 374).

[351] Bertholet, *Essai historique sur l'île du Cuba*, &c., et "Analyse de l'ouvrage de Ramon de la Sagra"—*Bulletin de la Société de Géographie*, July 1846; pp. 6, 12, 20–26.

[352] Gosse, *Déformations artificielles du Crâne*, Paris, 8vo, 1855; pp. 102–5; citing De Navarette (*Relations des quatre Voyages entrepris par Christophe Colombe*, Paris, 1828), and Ferdinand Denis (*Revue de Paris*, LV. supplément). For the Caribs, see D'Orbigny, *L'Homme Américain*—Voy. dans l'Amérique du Sud, Paris, 4to, 1839.

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Antilles, whose traditions dated back to the occupancy of Florida. At St. Domingo, Columbus was particularly struck with the whiteness of their skin, as well as with their culture and inoffensive habits (no weapons); circumstances which strongly contrast them with the reddish-olive hue and ferocity of the continental Caribs. Their possession of the *dog*, too, before Spanish communications, is an interesting fact; but I do not know whether its species has been compared with the enormous mastiffs (apparently) of the Guanches,[353] whose skeletons turn up, now and then, among mummied human remains at the Canaries.

This original population of Cuba, by some writers exaggerated to a million, and more reasonably estimated by Fray Luis Bertran at about 200,000, had been reduced to 14,000 by A. D. 1517. Las Casas, José Maria de la Torre, and Valdes, show that there were still some extant in 1533; but Diego de Soto, in 1538, slaughtered the remainder so effectually, that, about 1553, Gomara says there was no longer a native alive. Bertholet, however, considers such complete extinction over-stated; because, while many of the males were transported to the South American continent, the women were retained by the Spaniards. Precisely the same destruction of native Antillian life, — in order to make way for a bastard race since bred between exotic Spaniards and imported negroes — occurred on other islands. Thus, Priaulx observes, "Haiti, which, at its discovery, contained 1,000,000 inhabitants, — sixty years after, 15,000, — and in 1729, the aborigines were extinct."[354]

A curious report to the Spanish court (*Cartas de varones de Sevilla*), made by Fray Diego Sarmiento, Bishop of Cuba, 1550–1, proves the fact whilst deprecating the reason. — "The Indians diminish and disappear without propagating themselves; because the Spaniards and the *métis* [already numerous in 58 years] marry the Indian women; and that Indian male who, at this day, could procure one 80 years old, is even very lucky. I believe [continues the charitable Diocesan] that, in order to preserve and restore the population of this island, it would be well to bring over some Indian females from Florida, for the purpose of uniting them with the Indians of this country." Nevertheless there existed still, in 1701, some descendants of the old stock at Iguani; and Bertholet, quoting Milne Edwards's law that, after several generations, the old blood will occasionally "crop out," shows how this explains many ethnic points of Cuban

[353] D'Avezac, *Isles de l'Afrique*; — Usher, *Types of Mankind*, p. 342; — Prichard, *Nat. Hist.*, 1855; I, p. 272.

[354] *Quæstiones Mosaicæ*, p. 298, note, — citing P. Margat au P. de la Neuville, *Lettres Édifiantes*, vol. VII

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physiology, precisely as in like manner, similar causes produced the same effects at the Canary Isles.[355]

From Cuba[356] to the Island of St. Vincent the transition is natural. Here we should still behold the aboriginal Caribs, but for their expulsion "en masse," in 1796, at a cost of one million sterling, by English settlers, to the island of Roatan.[357] Already, from 1675, the shipwreck of a Guinea slaver near St. Vincent had infused so much exotic negro blood into the native stock as to have divided the latter into *black* and *yellow* Caribs. Transplanted again, by Spaniards, to the main-land of Honduras, these mulatto-Caribs found themselves in the midst of another population of half-breeds; viz.: the *Sambos* of the Musquito shore, formed there, since the 17th century, between survivors from the wreck of another African slaver and the native Indian tribes, amid whom, also, European buccaneers had not failed to bequeath many varieties of white blood. This infiltration of the essentially-domesticable qualities of negro races into the less tame able Indian (although the Central American approach the Toltecan rather than the *Barbarous*[358] tribes in social tendencies), has not been without its good effects in producing a laborious population of mahogany cutters: whereas, in the everglades of Florida, crosses between run-away negresses and the truly-barbarous Indian exhibit but incarnate devils for ferocity and hostility to civilization. Recent events on the Panama isthmus[359] confirm the deleterious consequences of such intermixtures, prognosticated five years ago by Berthold Seeman.[360]

"Morton informs us, besides," wrote Dr. Gosse, alluding to a characteristic African propensity for aping dominant races,[361] "that the shipwrecked negroes at St. Vincent (*Crania Americana*, p. 240) had at first deformed their heads, in imitation of the Caribs, their masters; but, so soon as emancipated, they continued it in *sign of liberty*. This was already the opinion of Leblond (*Voyage aux Antilles*, 1767–1802,

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[355] BERTHOLET, "*Guanches*," *Mémoires de la Société Ethnologique*, Paris, 8vo, 1841; Part I, pp. 130–46, 1843; II, pp. 83–111. These intermixtures are unnoticed by PRICHARD, *Nat. Hist. of Man*, 1855; I, pp. 272–4; or in II, pp. 590, 638–640.

[356] One cannot, of course, within 200 pages, discuss all the collateral questions bearing upon the transplantation of races from lands where they were indigenous to countries where they are not; but, for an exposition of the present ruined state of the emancipated Antilles, consult, above all, "Our West-Indian Colonies:" *Jamaica*, by H. B. EVANS, M. R. C. S., late Surgeon superintendent of immigrants, Lucea, Jamaica; London, 8vo, 1855.

[357] SQUIER, *Notes on Central America*, New York, 8vo, 1855; pp. 208, 212–17.

[358] MORTON, *Physical Type of the American Indians;—Types of Mankind*, pp. 276–80.

[359] WERMUTH, "À propos du massacre de Panama;" *The American*, Paris, II, No. 76; 7 June, 1856.

[360] *Voyage of H. M. S. Herald*, 1845–51, London, 8vo, 1853; I, p. 302.

[361] *Déformations artificielles du Crâne*, p. 126.

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p. 154): 'They felt,' says he, 'that this ineffaceable mark would forever distinguish them from the African race, who were being sold as slaves in islands inhabited by the whites.' "

Heureux le peuple dont l'histoire est ennuyeuse, might not, perhaps, be applied by Montesquieu to the wretched peoples referred to; but fear lest its point should be directed to the above excerpta compels me to finish with a clew to the philosophy of these complicated amalgamations. It is from the pen of one who, as regards American archæology in general, and Central American ethnology in particular, has no rival amidst his many admiring friends at the present hour.[362]

"Anthropological science has determined the existence of two laws, of vital importance in their application to men and nations.

"*First.* That in all cases where a free amalgamation takes place between two different stocks, unrestrained by what is sometimes called prejudice, but which is, in fact, a natural instinct, the result is the final absolute absorption of one into the other. This absorption is more rapid as the races or families thus brought in contact approximate in type, and in proportion as one or the other preponderate in numbers; that is to say, Nature perpetuates no human hybrids, as, for instance, a permanent race of mulattoes.

"*Second.* That all violations of the natural distinctions of race, or of those instincts which were designed to perpetuate the superior races in their purity, invariably entail the most deplorable results, affecting the bodies, intellects, and moral perceptions of the nations who are thus blind to the wise designs of Nature, and unmindful of her laws. In other words, the offspring of such combinations or amalgamations are not only generally deficient in physical constitution, in intellect, and in moral restraint, but to a degree which often contrasts unfavorably with any of the original stocks.

"In no respect are these deficiencies more obvious than in matters affecting government. We need only point to the anarchical states of Spanish America to verify the truth of the propositions laid down. In Central and South America, and Mexico, we find a people not only demoralized from the unrestrained association of different races, but also the superior stocks becoming gradually absorbed into the lower, and their institutions disappearing under the relative barbarism of which the latter are the exponents."

[362] SQUIER, *op. cit.*, pp. 54–8. See, for the same argument, that the present fall of the Spanish race in America is to be chiefly ascribed to their proclivity (as a *dark* type) to amalgamate with any race still darker — D'HALLOY (*Races Humaines*, pp. 44–5). "We meet indeed," well says DAVIS, "with confusion of blood on a great scale, but look in vain for a new race. Nature asserts her dominion on all hands in a deterioration and degradation, the fatal and depopulating consequences of which it is appalling to contemplate." (*Crania Britannica*, p. 7, note.)

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With reluctance I must terminate these digressional notices of human autochthones in different zoological realms. "The ancients," well remarks Courtet de l'Isle,[363] "unanimously professed belief in *autochthones*. * * * Now, this principle of *indigenousness*, consecrated among animals and plants,[364] was entirely equivalent, among the Greeks, to the principle which the plurality of races establishes at the present day." It is traceable in Homer, Hesiod, and Hippocrates. Ephorus of Cyme sustained it when he divided mankind into *four* races, according to the four points of the compass; and Aristotle held it where he adopts *three* types, "Scythians, Egyptians, and Thracians." The writer of Xth Genesis[365] had previously spread out his *nations*, *cities*, *tribes*, and *countries*, into a tripartite ethnico-geographical distribution, symbolized by "Shem, Ham, and Japheth;" which arrangement Knobel[366] agrees with me in denominating the *yellow*, the *swarthy*, and the *white* types. The Egyptians, centuries previously, had already divided mankind, as known to them, into *four*—the *red*, the *yellow*, the *white*, and the *black* races; calling themselves, as men of the red or honorable color, by the term "rotu," ReT, race "par excellence:"[367] and, about nine centuries subsequently, *four* nations—Lydian (*Japethic*), Scythian (not alluded to in Xth Genesis), Negro (*African*, and also excluded from that chart), and Chaldæan (*Semitic*)—were carved on the rock-hewn sepulchre of Darius:[368] while Linnæus, 3500 years after the Diospolitan ethnographer, at first tried to classify human natural divisions into *four*, according to the four quarters of the globe.

Wholly omitted as such things are in the last edition of Prichard, the anthropologist, in lieu of the preceding facts on hybridity, is favored with any quantity of "sentiment;"[369]—mostly thrown away, their ethnological bases being mostly false. Until science has stridden over the threshold in these new inquiries of the Mortonian school, we may say of *sentiment* what Father Richard Simon's Cardinal[370] replied to an anxious theologer—"Questo è buono per la Predica."

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[363] *Tableau Ethnographique*, p. 67.

[364] See particularly, as the latest enunciation of zoological science, the addresses of Prof. Agassiz before the American Association for the Advancement of Science, at Albany,—reported in the *New York Herald*, 26, 27, 28 Aug., 1856.

[365] *Types of Mankind*, Part II, *passim*.

[366] *Die Völkertafel der Genesis*, Giessen, 8vo, 1850; p. 13.

[367] *Types of Mankind*, pp. 84–86, 247–9; wood-cuts, figs. 1, 162, 163, 164, 165:—to which add, De Rougé, *Tombeau d'Aahmes, chef des Nautonniers*, Paris, 4to, 1851; pp. 41–2, 56:—and Brugsch, *Reiseberichte*, Berlin, 8vo, 1855; p. 331.

[368] Pulszky, *ante*, Chap. II, p. 150, fig. 35.

[369] *Nat. History of Man*, 1855; II, pp. 657–714.

[370] *Hist. crit. de l'Ancien Testament.*

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"O ye mitred heads! lay not
Approving hands on skulls that cannot teach,
And will not learn."

(COWPER.)

Probably autochthones, certainly aboriginal, were the men of prognathous and otherwise inferior type whose humatile crania, in the caverns and diluvium of Europe, instigated my excursus in quest of parallels. Of these, however, I have seen none of the true Belgian or Austrian specimens: those pointed out to me in the magnificent *Galerie d'Anthropologie* at the Jardin des Plantes, by my friends MM. Jacquard and Rousseau, being, with one exception, ancient Gaulish, Keltic, or Etruscan. I obtained photographic copies of the most interesting, together with that of the exceptional skull marked "Crâne (Gard)—*Type celte.* M. Serres." These[371] I had the pleasure of passing on, in London, to the cabinet of our obliging colleague Mr. J. Barnard Davis, of Shelton, Staff.; in whose hands, as joint author of *Crania Britannica*, they may become really available to science, through comparisons with the wide range of cognate British skulls now undergoing his and Dr. Thurnham's critical analyses. As a specimen, merely, of the high scientific tone adopted by these gentlemen, I cannot refrain from reproducing their opening sentences on the *Historical Ethnology of Britain.*[372]

"It is now generally admitted that the plants and animals which cover the surface of the globe are to be regarded as forming groups, each having a *specific centre*, from and around which, within limits determined by natural laws as to climate, temperature, &c., the several species have been diffused. The plants and animals composing the flora and fauna of the British Islands are, however, not peculiar to them, but are almost without exception identical with those of different parts of the continent of Europe; and thus the existence of a specific centre for the isolated area of these islands, or, in other words, any special creation of plants and animals within their limits, cannot with any probability be admitted.

"The late distinguished Professor E. Forbes, by a remarkably happy example of philosophical induction, has shown that the terrestrial animals and flowering plants now inhabiting these islands must have migrated hither over continuous land, which in the course of subsequent geological changes was destroyed; and that this diffusion by migration occupied extended periods of time, having various climatal conditions, before, during and after, the

[371] Reduced copies of some of them have attracted Dr. Meigs's notice in his Chapter III, figs. 29, 35.

[372] *Crania Britannica*, Decade I, London, 4to, 1856; p. 44. Cf. MEIGS's Chap. III, p 301, fig. 29, *ante*—for the cranioscopical *indicia* so far attained.

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great Glacial epoch. The characteristic and all the universally distributed plants and animals of these islands, belong to the *Central European fauna and flora*, or great Germanic type. But in addition to this, the prevailing, it is shown that there are the remains of no fewer than four other floras occupying more or less limited areas in Britain, and each having its specific centre in some part of the continent of Europe. Three of these belong to more southern, the fourth to a more northern latitude or isotherme. The most ancient of our floras, Professor Forbes considers to be only peculiar to the west and south-west of Ireland, and which is shown to be identical with that of the north of Spain; a geological union or close approximation with which country seems to be the only method of explaining the presence of so characteristic a flora, including the hardier Saxifrages and Heaths of the Asturias, and such plants as *Arabis ciliata*, *Pinguicula grandiflora*, and *Arbutus unedo*. The isolation of this *West Irish flora*, or Asturian type, probably took place by the destruction of the intermediate land in the glacial period. No traces of any associated fauna remain."

M. Maury's philological inductions (*supra*) equally corroborate the view that certain inferior and indigenous races of man, in pre-historic Albion as well as in primordial North-western Europe, were succeeded by conquering tribes of the "great Germanic type."

PART IV.

We may now reconsider some of the practical issues of this inquiry.

It has been shown, 1st, that in America, humatile men and humatile monkeys occupy the same palæontological zones; — 2d, that, whilst all such remains of man are exclusively of the American *Indian* type, the monkeys called *Hapale*, *Cebus*, *Callithrix*, &c. are equally "terræ geniti" of this continent; no bimane or quadrumane examples of identical "species" of either being found, fossil, humatile, or living, out of it;—3d, that, in their respective epochs of existence, both, with the slightest modifications of so-termed "species" on the monkeys' side, have existed from the geological period of Lund's Brazilian caves, coupled with the extinct genera of animals discovered in them, down to the present day, contemporaneous; — 4th, that, finally, *permanence of type*, as well for humanity as for simiadæ, is firmly established in both genera, from the hour in which we are

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living, back to a vastly remote, if not incalculable, era of unrecorded time.

Now, were some ethnologist to inquire of any naturalist whether he believed that genus *Hapale*, *Cebus*, or *Callithrix*, had clambered round from Mesopotamia, viâ Bhering's Straits, to Peru; or had swum across the Atlantic from Africa to Brazil, if not, perchance, athwart the Pacific from Borneo to Chili, as one alternative; or, whether American *simiæ* were created in America, as the other: I presume such naturalist might, without committal, respond to this query by propounding another to the ethnologist, viz.: "Don't you think that, whichever way American *man* came to this continent, it was along the identical route by which American *monkeys* had pioneered the track for him?"

For myself, I cannot find out how either came. Here both are, and have been, from the earliest ante-historical period we may guess at. Whenever an ethnographer will obligingly point out to me any given primordial link, between human autochthones of the Old World and aborigines of the New, that archæological criticism is unable to shatter, I may trouble a naturalist to acquaint me with some mode by which old *Callithrix primævus protopithecus*, of Brazil, held intercourse anciently with his elder *Dryopithecus Fontani* of France.

This is the name just fixed by M. Lartet,—the first discoverer of fossil *simiæ*[373] twenty years ago, and five years after Cuvier's decease, —to a new species of anthropoid monkey exhumed by M. Fontan, from a bank of marly-clay, at Saint-Gaudens (Haute-Garonne) near the Pyrenees.[374]

It was about the same time last month[375] I commenced that part of my present MS. which enumerated (*ante*, p. 459) the different fossil monkeys hitherto disinterred; and the coincidence of M. Fontan's unforeseen exhumation of a larger and higher type, in Europe too, than any before known, is so gratifying, that I prefer to let what I had then written stand, and to avail myself here of M. Lartet's most opportune improvements. It is to our collaborator Prof. Joseph Leidy, that I owe communication of the "tirage à part" sent to him last mail by M. Lartet.

"The pieces of this monkey," explains Lartet, "that M. Fontan has charged me to present in his name to the Academy, consist in two halves of a lower jaw broken at their ascending rami, added to

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[373] De Blainville, *Ostéographie.*

[374] Lartet, *Note sur un grand Singe fossile qui se rattache au group des Singes supérieurs*—Extrait des *Comptes rendus des Séances de l'Académie des Sciences;* Paris, tome xliii.; 28th July, 1856; with a plate, pp. 1–6.

[375] I am writing at Philadelphia, on this 28th August, 1856.

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a fragment of the anterior face of this jaw in which the incisors were planted. There was found at the same time a humerus epiphysized at its two extremities." He remarks on the teeth also,—"This would be a process of dentition intermediate between that of man and of living monkeys, except the *Gibbon Siamang*, in which I have observed the same circumstances of dentition as in our fossil monkey. (This gives me an opportunity to remember that the *Gibbons*, and in particular the *Gibbon Siamang*, placed generally by zoologists in the last rank of the tribe of *Simians*, or *Superior Monkeys*, furnish notwithstanding, through their skeleton, a totality of characteristics approaching very much more considerably the human type than one can find in the *Orang*, or even in the *Chimpanzee*.)"

"In *résumé*, the new fossil monkey comes evidently to place itself, with some superior characters at certain points of view, in the group of the *Simians*, which already comprises the *Chimpanzee*, the *Orang*, the *Gorilla*, the *Gibbons*, and the *little fossil Monkey* of Sausan (*Pliopithecus antiquus*, Gerv.). It differs from all these monkeys through some dental details; and, more manifestly still, by the very-apparent shortening of the face. The reduced size of the incisors being allied with great development of the molars indicates a regimen essentially frugiverous. The little that is known, furthermore, of the bony structure of the limbs, denotes more of agility than muscular energy. One would be, therefore, thus induced to suppose that this Monkey, of very large size, lived habitually upon trees, as do the *Gibbons* of the present epoch. In consequence I will propose to designate it by the *generic* name of *Dryopithecus* (from *drus*, tree, oak [found likewise amongst the lignites of the same Pyrenæan region], and *pithekos*, monkey). In dedicating it as *species* to the enlightened naturalist to whom palæontology is indebted for this important acquisition, it would be the *Dryopithecus Fontani*.

"Six fossil monkeys, then, are henceforward to be counted in Europe, viz: two in England, the *Macacus eocenus*, Owen, and the *Macacus pliocenus*, id.; three in France, the *Pliopithecus antiquus*, the *Dryopithecus Fontani*, and the *Semnopithecus monspessulanus*, which is probably the same as the *Pithecus maritimus* of M. de Christol. Lastly, the monkey of *Pikermi*, in Greece, named by M. A. Wagner *Mezopithecus pentelicus*. M. Gaudry and I propose, in our Memoir on the fossil bones of *Pikermi*, which will be soon presented to the Academy, to attach this monkey to the group of *Semnopitheci*, under the name of *Semnopithecus pentelicus*."

Bones of the *Macrotherium*, *Rhinoceros*, *Dicrocerus elegans*, &c., were also collected at the same spot, by M. Fontan, and in the same medium tertiary (*miocene*) deposits.

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Thus, in one short month since this essay was commenced, advancing science has added another grand link to the chain of organic remains which now connects the faunæ of the past old world with those of the present. Already, from the previously known fossil *Gibbon*, not a far remove from human likeness, we have mounted up, in the graduated scale of organization, to the level of the highest living anthropomorphous apes (*Orang-utan*,[376] *Chimpanzee*, and *Gorilla*), through this precious discovery of *Dryopithecus Fontani*.

It will opportunely exemplify how prepared really-scientific men are now, all over the world, for these revelations from "*the Book of Nature*—which cannot lie," to present here an extract from the address of my friend PROF. RIDDELL, delivered at New Orleans, on the 25th Feb., 1856—some six months before M. LARTET announced at Paris this astounding "confirmation."

"I must allude in very general terms to the recent progress of Geology. The philosophical views of Lyell, respecting the dynamical causes that have produced the geological aspect of our planet during the lapse of past ages, are gaining more and more fully the assent of the cultivators of this science. Instead of evoking, as a probable cause, the agency of imaginary cataclysms, or general and sudden convulsions of nature, to explain the origin of mountain upheavals, terrene depressions, the petrifaction of organic remains, the extinction of successive races of animals and plants, the induration, crystallization, and disintegration of rock strata, Mr. Lyell alleges that we have reason to suppose all these, and more, have resulted from the long-continued agency of such dynamic causes as continue to manifest their action at the present time. In some instances, the effects produced are hardly appreciable during the brief period of human life; but we should remember that the stately hundred years, which is rarely approached, and still more rarely exceeded by man, when used as a measure for the probable duration of those vast periods of time occupied in the production and modification of the numerous successive geological strata, with their mineral contents and organic remains, becomes, to our limited comprehension, a mere infinitesimal; a quantity too small to have assigned to it any sensible value in comparison.

"The recent period, so called, now in progress, contains the relics of animals and plants, of species essentially identical with those now flourishing. It has been estimated, from data carefully obtained and

[376] In Malay, "Orang" means only *man*, and is prefixed to proper names of all nations; "Utan," signifying *wild*, designates the "Orang-utan" as the *wild man*, which CRAWFURD (*Malay Grammar and Dictionary*, II, p. 123) spells "Orang-utang,"—its true Malayan name being "Miyas." Still (p. 198), "Utan" is given as the synonym for *wild, wilderness*.

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unobjectionable, that our Mississippi delta, south of the latitude of Baton Rouge, pertaining, of course, to the recent period, has occupied no less a time than 120,000 years in its formation. The particulars of this computation I need not now trouble you with.

"It is a very common occurrence that sweeping assertions are made in palæontology, based upon negative data. That is, because certain classes or genera of organic remains have not yet been found in the older fossiliferous strata, therefore they did not then exist on the face of the earth or in its waters. I think this practice is prolific in false induction in science. The present tenants of our globe comprise perhaps 500,000 species of animals and plants. The organic species preceding these, in former ages, were in all ages probably just about as numerous. Palæontologists have brought to light, from about 20 different and successive fossiliferous formations, about 20,000 species of remains, nine-tenths of which, as from the nature of the case we might expect, are of marine and aquatic origin. Now, the plants and animals whose remains characterize these 20 formations, while flourishing in their respective ages, were probably, in each of the 20 cases, as numerous in species as those contemporary with us. Averaging the known fossils to the formations, each of the twenty would have 1000 species, which is only 1-500th of what may fairly be supposed to have existed. Admitting this reasoning as valid, two or three instructive conclusions would flow from it. 1st. That doubtless many species of animals and plants have heretofore existed as well as at present, that from their habitat and habit were rarely or ever likely to be preserved as organic remains. 2d. There is no probability that geologists are as yet acquainted with all, or even with a fiftieth part of the organic remains entombed in the various formations constituting what may be called the rind of our globe. 3d. Assume at perfect random any one species, *as for instance an animal analogous to the Ourang-Outang, the probability is* 500 *times greater that such an animal existed* at any geological age, also assumed at random, *than that his remains will, in our day, be found by geologists in the corresponding formations.*"[377]

Fossil man, of some inferior grade, is now the only thing wanting to complete the palæontological series in Europe, in order at once to exhibit bimanes and quadrumanes in parallel fossil development; and thereby to plant the genera *Simiadæ* and the genus *Homo* on one and the same archæological platform. Let us hope! We actually hold in our hands the short end of the thread, through the progna-

[377] *Annual Address read before the New Orleans Academy of Sciences*, Feb. 25th, 1856, by PROF. J. L. RIDDELL, University of Louisiana, President of the Academy, p. 4. [Intercalated in my MS., at Philadelphia, 25th Jan. 1857.]

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thous crania of inferior human races discovered, in the *humatile* phase, over Belgium and Austria. Science now lacks but one, only one, little fact more to terminate forever the question—"have human *fossil* remains been found?"

Again, I say, there is margin for hope! May be, that it is neither in Europe nor in America that fossil humanity is to be sought for. Perhaps, after all, the malicious aphorism whispered by Mephistopheles to Goethe in "Faust," *that if humanity advances, it is spirally*—might some day turn out to be as true in geographical palæontology as it is often in ethics, and oftener in inventions.

Not a tenth part of Asia, not a twentieth part of Africa, has as yet been explored by the geological pick-axe; the inlands of Borneo, Sumatra, New Guinea, have not yet been trodden by the white man's foot, far less open to the palæontologist. It is to scientific mining and to rail-road operations, conducted only by the most civilized races of the world, that, within the present quarter-century, the earth begins to yield up her dead, and display her riches in organic remains. When the iron net-work, such as the "peace of Paris" already stimulates, is spread from the Neva to the Amour, from Trebizond to Calcutta, from Jerusalem to Aden, from Cape Town to Lake Uniamési,[378] and from Algiers to the Senegambia, perchance to the Gaboon river, we shall doubtless possess many more fossil monkeys, and (why not?) a fossil man.

Upon the principle of *representation* in the successive series of the faunæ of each zoological zone, it should be about Borneo that we may expect to dig up fossil analogues of *Orangs* and Dyaks; about Guinea and Loango those of *Troglodytes niger* and of *Gorilla-gina*, no less than of some human precursors of present negro races. And yet, up to this day, ten years after their discovery, not a living specimen[379] far less a fossil sample, owing to inaccessibility of their habitats, has been procurable, even of the *Gorilla*, through French or other colonists at the Gaboon!

Here, I may be allowed a digression,—not altogether irrelevant, because it aids to clear up doubts as to the earliest contact of the Saracenic Arabs, after their conquest of Barbary in the 7th century of our era, with *Negro* nations; whom Arabian camels, then introduced on a large scale into northern Africa, first enabled the

[378] PETERMANN, *Mittheilungen aus Justus Perthes' Geographischer Anstall*, &c., Gotha, 4to, 1856; pp. 13–32; and his "Skizze einer Karte * * * *des See's von Uniamesi*;"—which later explorers seem to doubt.

[379] IS. GEOFFROY ST. HILAIRE and DUREAU DE LA MALLE, in *Annales des Sciences Naturelles*, Paris, IIIe série, XVI, pp. 154–217.

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Prophet's victorious "*goum*-s" [Arabic for "levies"—literally *get ups*] to reach athwart the Sahara-deserts. It will also show how invaluable to ethnography are French translations of long-disregarded Semitic historians, not merely those of the chosen Israelitish stock. Besides, the work is little known to the "reading public."

Ebn Kháledoon (or *Khaldùn*)[380]—the most erudite, philosophic, and unfortunate,[381] Arabian writer in Barbary during the 4th and 5th century—tells us how, "the *Molàthemeen* [wearers of the "lithàm," *muffler*, for the double object of keeping off sun and dust in the desert, and of hiding the face from enemies—*law of the Dakhèyl*],[382] a people of Sanhadjian [Berber] race, inhabited the sterile region that stretches away into the midst of the sandy desert [Sahara]. From immemorial time—from very many centuries prior to Islamism—they had continued to traverse that region where they found everything that sufficed for their wants. Keeping themselves thus far removed from the 'Tell' [Arabicè *hill*, *i. e.*, Mount Atlas], and from the cultivated country, they replaced its productions by the milk and flesh of their camels. Avoiding civilized countries, they had habituated themselves to isolation; and, brave as ferocious, they had never bent beneath the yoke of foreign dominion." In short, these Sanhadjians are the perfect types of old Roman *Numidians*, and modern *Touariks*,—except, in religion, the adoption of Islàm for Africanized-Punic fetishism—in language, a great many Arabic words of civilization absorbed into their Berber speech—in zoology, the camel for the horse—in arms, the match-lock for the bow. Such, too, were a cognate tribe, the *Lemtouna*.

"When the Lemtouna had subjugated the desert-regions, they carried war amidst negro nations, in order to constrain these to become Mussulmans [just as we, now-a-days, through missionaries, are trying to make Christians of all peoples who are not—in most cases, amongst inferior types of man, only hastening their ultimate obliteration]. A large portion of the Blacks then embraced Islàm;

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[380] *Histoire des Berbères et des Dynasties Musulmanes de l'Afrique Septentrionale*, translated from the Arabic by the Baron de Slane, for account of the "Ministère de la Guerre;" vol. I, Algiers, 1847; vol. II, 1851. My excerpta are taken chiefly from I, pp. 36–7, 53, 184–5;—II, pp. 64–70, 104–5, 106. The history commences with the Arab conquest of Barbary in the 7th century, and ends during the 14th.

[381] Zèyd-âbd-er-Rahmàn Ebn Khálendoon was born at Tunis in 1332. After greatly distinguishing himself at the courts of Barbaresque princes, he became Grand Qàdee (Judge) of Cairo under *Ed-Dàher-Barqooq* in 1384; when the vessel, in which his family had embarked on their way to him, sunk,—"Thus, one single blow deprived me for ever of riches, happiness, and children." He died in 1406.

[382] Layard, *Nineveh and Babylon*, 2d Exped., 1853, p. 317:—Fresnel (*Arabes avant l'Islamisme*, Paris, 1836, p. 36), shows how it was only at the ancient Arabian fair of Oukàsh, abolished in first century Hedjra, that hostile tribes could meet *unmuffled*.

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but the remainder dispensed with it, by paying the capitation-tax [equally satisfactory to the Saracenic missionary, who good naturedly permitted those anti-Mohammedan back-sliders, or recusants, to 'compound (always in cash) for sins they were inclined to, by damning those they had no mind to']."

Telagaguin, their king, was grandsire of Aboo-Bekr-ebn-Omar, who commanded the Elmoravidian empire. His successor Tîloutan conquered the Soudàn, "marching surrounded by 100,000 dromedary-riders mounted upon *Maharis* of pure blood;" and died in Hedjra 222 = A. D. 837. Another historian says that, in the 4th century Hedjra, Obèyd-Allàh had 100,000 camels, and subdued 23 negro kings. The Lemtouna even reached the Senegal. "We know," comments De Slane, "that this river continued, for a long time, to separate the Berber from the negro race.[383] In the year 1446, when the Portuguese were making their first explorations of the western coast of Africa, the tribes of the Assanhagi [*Zanaga, Sanhadja*] inhabited the northern bank of the Senegal; and the Yalof, or *Wolof*, that is to say, the *Blacks*, occupied the other. We must observe that 'Senegal' is an alteration of the [Berber] word *Asnaguen*, or *Zenaguen*, plural of *Zanag;* that is to say, the Sanhaja"—one of the great branches of the *quinquegentani Berberi.*[384]

Ebn Kháledoon continues—"As for those who remained in the desert, nothing has changed their manner of being, and, even to-day, they remain divided and disunited [as they continue now, 1000 years later]. * * * They [the Berber tribes] form a species of cordon along the frontier of the land of the Blacks,—a cordon which stretches itself parallely to that which the Arabs form upon the frontier of the two Moghrebs and of Ifrikîa":[385]—thus demarcating in his time, with

[383] See Raffenel (*Voyages dans l'Afrique occidentale, comprenant l'exploration du Sénégal*, &c., 1843–4, Paris, 1846), for the best description of these Senegalian nations.

[384] *Otia*, "Berber Tribes," p. 146:—*Types*, pp. 510–26.

[385] Says Ebn Kháledoon—"Because it must not be thought that the Arab nomades had inhabited this country in ancient times. It was only towards the middle of the 5th century of the Hedjra that Africa was invaded by bands of the tribes of Hillah and that of Solèym,"—and then not further west than the Cyrenaica. No Arab settlers were [aside from the Saracen soldiery] in Barbary prior to this immigration,—except in the confused Yemenite legends of "Tobba, an Arabian king, who gave his name to *Ifrikîa;* * * * * And the reason was because the Berber race then occupied the country, and prevented the other peoples to fix themselves in it."

Now, this name *Ifrikîa*, borrowed from the "Africa" of the Latins, possessed, like "Libya," a more restricted geographical extension formerly than in modern days. Indeed, among the Arabs even now, *Ifrikîa* does not mean "Africa," but only the tract of country from Cape Barca to Tunis, not even so far west as Algeria. Owing to ignorance of this fact, and Frenchmen's poor acquaintance then with Arabic, the General who concluded the "Treaty of Tafna" with *el-Hadj* Âbd-el-Qàder, committed more diplomatic mistakes, in *one* line (the cause of all the troubles France had with this gallant chieftain till she cap-

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the greatest perspicacity, the same relative topographical positions in which the indigenous Atlantic Berbers, the exotic Arabs, and the negro races, stand towards each other at this day.

Perfectly clear also were this learned Arab's ethnic views about the distinctness of *negro* nations from either Berbers or Arabs. His "History of the kings of the negro peoples [*Soodàn*, i. e. the *Blacks*]" begins thus: "This portion of the human species that is composed of negro populations has, for dwelling-place, the countries of the second climate and of the first [His geography being that of EDREESEE, who, like the Greeks, imagined that the African continent prolonged itself towards the east; in order to form the southern limit of the Indian and China Seas]. * * * They occupy these territories in all their width, from the occident to the orient. * * * The negro species subdivides itself into several races, tribes, and ramifications; of which the best known, in the last, are the *Zendj* (natives of Zanzibar and Mozambique), the *Habasha* (Abyssinians), and the *Nouba* (Nubians)." He describes some nineteen peoples of the black race; and relates two curious facts showing the danger of arming negroes as soldiers:—1st, how in Hedjra 252 = A. D. 866, the *Zendj* "slaves" revolted at Basra (*Bassora*, on the Euphrates):—2nd, how in Hedjra 468, the corps of Turkish Memlooks, in the service of EL-MOSTANSER, had many sanguinary engagements, at Cairo, with the negro "slave" troops belonging to the same Khálif. The *Ketamians* (i. e. Berber, or Moghrabee, mercenaries) ranged themselves on the side of the Memlooks; and, in one of their conflicts, 40,000 of their black adversaries were slaughtered. The same troubles recurred during my own time in Egypt, when Mohammed Ali imagined that he could form a regular army of negro soldiers, imported as slaves from the Belàd-es-Soodàn along the Upper Nile. Out of some 12,000 who

tured him, and in time sent him to Brussa, and afterwards, where he resides now, to Damascus) than any Plenipotentiary ever perpetrated before! Without the Arabic text it cannot be made very clear, but here it is from PASCAL DUPRAT (*Op. cit.*, pp. 291–2). The words run:—"*el Ameer* ÂBD-EL-QÀDER *yiâref hukm Sooltànat Fransa fi Afrikeeya*"—supposed by the French protocol-maker to mean, "le Prince Abd-el-Kadér reconnaît le gouvernement du Roi des Français en Afrique." Nothing of the kind! The astute Shemite overreached the Dragoman (interpreter) in the two main points,—1st, by getting himself recognized as an *Ameer*, prince, when he was previously but a mere *hadjee*, pilgrim to Mecca; and 2nd, by recognizing French sovereignty, not in Algeria at all, but away to the eastward (where neither party had any rights) in Tunis, Tripoli, &c.! This is the literal sense—"the prince Âbd-el-Qàder knows the government of a king of France in *Afrikeeya!*"

Russia for a century, France for twenty-five years, England for some twenty-five months, and the United States Executive not even yet—have comprehended that diplomatists ought to be at least acquainted with the vernacular of those countries to which, at enormous cost, and frequent inutility, they are commissioned.

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were drilled in Upper Egypt, 1823–5, all those who did not die of consumption before the expeditions[386] sailed to the Morea (1824–5),

[386] "Haud obliviscendum" by his first-born is all that need here accompany reference to my Father,—who unostentatiously manumitted, at Alexandria, every one of our slaves, between the years 1821 and 1827. This is a fact I desire to speak upon.

JOHN GLIDDON—born at Exeter, Devonshire, 28th February, 1784—left England in 1811, was a known Mediterranean merchant at Malta for seven years; and thence settling in Egypt with his family (August, 1818), became not unknown for influential position and generous deeds during the apogee of Mohammed Ali's career; especially whilst holding, from 1832 to 1844, the *honorary* incumbency of the U. S. Consulship, first at Alexandria and subsequently at Cairo. He died at Malta-*hánneena* — 3d July, 1844.

[I say "honorary" U. S. Consul, for the especial purpose of contradicting, once and forever, one of many other falsehoods printed last summer, viz: "Our first Consul-*General* in Egypt was a Yorkshireman, who owed the station to missionary patronage. He received $2000 *a year*, and was free to continue his own vocation as a merchant."

The anonymous, though by myself unmistakeable, signature of a "Traveler" more notorious for ubiquity than for veraciousness or discretion,—taken in conjunction with the coincidence that his *lies* found utterance in a "daily" whose head manager and editorial principles are too vile for durable advertisement from my own pen—render it merely necessary here to record that, in the *North American* (Philadelphia, February 10, 1847), may be found a "Letter" of mine, setting forth, then as now, all relations of GLIDDON-*prenomina* with the various administrations of the United States during my lifetime, so far. Speaking merely as an ethnologist, I myself have only read or heard of, and never cared about, *what* executive may have happened to strut, quadrennially, over the Washingtonian platforms. Each of us felt proud to serve the *United States*; none of us being ever minions of a faction. The pending Congressional committee of investigation into "Lobby" membership (amply commented on in the *New York Herald*, Dec. 1856–Feb. 1857), absolves me from adding my experiences of political probity in "Uncle Sam's" domain. I will, therefore, merely challenge contradiction, at the United States' State Department, of these facts, viz: that my Father for 12, myself for 8, my brother William for 2, my brother-in-law Alexander Tod for 6, and all of us during 17 years that we upheld gratuitously the honor of the flag in Egypt, ever received compensation, personally, in a single United States' "red cent." We have severally been the mere channels of payment (less than $500 a year at Alexandria, during *perhaps* 17,—and far less than another $500 per annum at Cairo during 3 years), to native employés whom the State Department's "printed regulations" compelled us to maintain and stipend for the United States' service in that Pashalic. On the contrary, there hang on file, at the State Department (as mentioned in the *North American* aforesaid), documents to prove that, were equity in Congress not notoriously measured by the ratio of discounts to *intermedia*, "Uncle Sam" really owes, and ought to pay, my Father's estate something over $2000 at this moment, interests for 20 years exclusive,—which claim, now as formerly, I hereby abandon to the fate of "Amy Darden's *horse*."]

We landed in Egypt before the "Emancipation Act," which has ruined the British West Indies, was passed; wherefore my Father then considered it no sin to purchase, for domestication, such slaves as suited our family requirements. The first was, 1819, *Fâtima*—nurse to my lamented brother Charles (died suddenly of cholera at Dacca, Bengal, 27th Nov. 1840)—a reddish-black Galla-girl, rivalling the *Venus de Medicis* in form and strikingly in face,—but with long, soft, wavy hair, small mouth; in short, no negress. She was freed and married out in 1821, dying shortly after of the plague. The next were, 1822, *Fâtima* and *Seÿda*, Dâr-foor negresses, and a fine negro boy named *Murgiân* (i. e. *Margaritus*, coral). The former two were emancipated, dowried and married out in 1823, owing to the departure of my mother to place three of us at school in England. The latter, after being taught reading and writing, baptized and vaccinated, underwent, at the age of puberty,

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none came back (1828), except a few miserable *sukkat hâles* (invalided veterans) who, for a few years, lingered as household guards about the hàreem-door of Ibraheem Pasha at Kasr-ed-Doobàra, until the plague of 1835 ("quæque ipse miserima vidi") swept them off, together with almost all the negro slaves and Nubians (*Barâbera*), then in Lower Egypt.[387] During five months that (1828–9) I sojourned at Navarino and Modon, skeletons of some of these unfortunates, recognizable by tatters of their uniforms, frequently fell (in continual rides and shooting excursions) in my way, while graves of the remainder lay alongside the Modon road for miles.

If the opinions of those alone qualified to decide be taken, all the families of Atalantic, or Gætulian, stock are *terræ-geniti*.[388]

"The Berbers," says De Slane, "autochthonous people of northern Africa, are the same race that is now designated by the name of *Kabîles*. This word, which signifies 'clan' [in Arabic, plural

that constitutional change from intelligence and gentleness to stupid ferocity which, in Egypt, prevents everybody, but Turkish officials who possess soldiery, from keeping adult negro male slaves in households. *Murgiàn* abjured Christ and turned Muslim, became too restive for mild control,—and finally (1824), becoming infatuated with a *Nizàm-jezeèd* regiment of negroes about to embark for the war in the Morea, my father gave him his liberty. He sailed and, like his comrades, never came back. Four more negro girls were purchased on my mother's return to Alexandria (1825); but, being absent in England myself at that time, I do not recollect the names of 3, and they were already free and married off on my return in June, 1827,—as was the fourth, *Barbàra*, in July of the same year. Her place was re-filled by a Christian white slave, bought out of compassion from the Turkish soldiery, in the basaar, when hundreds of Greek captives were ravished from the Morea, to become, in portion, rescued, through Count de St. Leger and Captain Coddrington, 1828; as, indeed, two others were by myself at Cairo in 1832, and sent home. Our lady's maid, *Pasquala*, free from the hour she touched my father's threshhold, married out in 1828; and thus in that year ended our family connection with slavery; although a silly tourist (Dr. Holt Yates), hospitably entertained by my father at Alexandria in 1828–9, has fabricated for his book an affecting tale about the influence of an "Abyssinian slave girl" over one of my sisters!

In justice to my parents' memory I ought to state that, in common with others at that emancipation-period, they then renounced the further possession of slaves "for conscience' sake;"—sentiments in which I never have participated; because I consider it a far more philanthropic act (whatever "Exeter-hall" may think of it), to rescue by purchase any human being—especially semi-wild negroes, when their *humanization* is the natural consequence—from the brutal clutches of the *gellàb* (slave-fetcher), than either to abandon him or her amid the horrors of an Oriental slave-mart, or to let him or her run the risk of not obtaining a better master.

"So then," as St. Paul (*Ep. to the Romans*, XIV, 12,—Sharpe's N. T., p. 303) has clearly expressed it, "each of us shall give account of himself to God;" nor is the Father accountable, in this case, for a difference of ethical opinions in his son.

[387] There is a note of mine on this subject in my friend Dr. Barton's *Report of the Sanitary Commission of New Orleans*, 1854. See also Nott's Chap. IV, p. 393, ante.

[388] For all former authorities, see Gliddon, *Otia Ægyptiaca*, 1849, "Excursus on the origin of some of the *Berber* tribes of Nubia and Libya," pp. 116–46:—and *Types of Mankind*, 1854, pp. 180–1, 204–10, 510 "Ludîm," to 526.

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Kabàïl], has not been employed to designate the Berbers earlier than about three centuries. The introduction of this distorted meaning must probably be attributed to the Turks,"[389]—who entered Algiers under Barbarossa at the beginning of the 16th century.

Inasmuch as great confusion prevails yet in the minds of otherwise well-informed ethnographers upon Berber subjects, and my object being now to separate these races of the Hamitic type of mankind, entirely from any affinity with more austral negro nations, unknown to the Berbers before the introduction of camels[390]—a few extracts from the French "Exploration scientifique de l'Algérie"[391] are here introduced.

The uplands and the aborigines of *Berberia* (true name for Barbary) are likened by Carette, in their geological phenomena and their human vicissitudes, to an Archipelago subject to rising and falling tides:—"the scarped islands are the mountainous masses; the flat islands are the Oases;[392] the secular tides are the invasions. All these islands represent different groups of the same nation; whereas the wave that bathes them is by turns Phœnician, Roman, Vandal, Greek, Arab, Turkish,"—and, at this moment, French. All these have carried away some Berber, and left some foreign words. Nevertheless, the old *lingua Atlantica* is still recoverable; at the same time (as I have elsewhere indicated) all its words of moral and intellectual civilization, altogether wanting in Berber, have been absorbed from the *Arabic*,—from which the Berber vocabulary and grammatical construction, by monogenists supposed to be "Syro-Arabian," is now proved to be absolutely distinct.

Under the head of "Distinctive characteristics of the Berber tongue," our Author points out that the strongest difference between the Arabs and the *Kabàïl* of Mt. Atlas lies in their languages—"c'est là surtout qui en fait deux nations distinctes." Arabic words, when adopted by Berbers, undergo great changes, and these people understand as little of an Arabic discourse as a French one; at the same time that it is easier for an Arab to acquire French than

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[389] *Op. cit.*, preface, p. 1.

[390] Amply confirmed, from the latest sources, by VIVIEN DE ST. MARTIN, "L'Exploration scientifique de l'Afrique centrale," *Revue Contemporaine*, Paris, 15th Sept. 1855, pp. 435–6.

[391] "Pendant les Années 1840, 1841, 1842, publiée par ordre du Gouvernement, et avec le concours d'un Commission Académique," 4to, many vols., 1848–53, Paris, Imprimérie nationale (now impériale). My selections are made chiefly from CARETTE, *Études sur la Kabilie proprement dite* (I, pp. 13, 20–33)—*Précis historique* (pp. 447–62)—and *Recherches sur l'Origine et les migrations des Principales Tribus de l'Afrique Septentrionale, et particulièrement de l'Algérie* (III, pp. 13–25, 27–55, 301–6, 441, 476).

[392] Lucidly explained from the accounts of RICHARDSON, BARTH, OVERWEG, and VOGEL, as regards the Tripolitan route over the Sahara, by ST. MARTIN, *op. cit.*, pp. 430–6, 440–6.

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Kabàylee: whilst the *Kabyle* mountaineer, in bringing his produce to market, has much more need of Arabic than an Algerian Arab has of Berber.[393]

"Albeit, there exist whole tribes who present the bilingual character. But, among such septs the principal localities almost always bear names of Berber origin; which seems to announce that, upon these different points, the *Kabàïl* had originally possessed the soil. The existence of these double-languaged populations expresses, therefore, nothing else than the transition between the primitive stratum, formed out of the *Kabyle* element, and the alluvial stratum, formed out of the Arabic element. * * *

"Two incontestable facts are the following, viz: prior even to the most ancient of invasions [the Punico-Canaanitish?], there existed, along this part of the African coast, a people and an idiom differing from all those peoples, and from all those idioms, which were to succeed each other during 2000 years; and that, now-a-days, the last [French] invasion finds again, in this country, a people and an idiom different from all those which preceded it."

The well-known "monument of Dugga" contained 7 lines in Phœnician, and 7 others in an unknown writing. After the French occupation (1830), abundant bilingual inscriptions were found,—sometimes Latin, at others Punic; but ever accompanied by the same unintelligible characters. The Berber alphabet, observed by OUDNEY in 1822, advanced by DE SAULCY in 1844, and recovered by BRISSONNET in 1845, has aided to unfold a great fact, viz: "the examination of these documents leaves no doubt as to the close relationship that exists between the idiom of these antique inscriptions and that other idiom now being spoken from the Egyptian Oasis of Seewah (westwards) to the shore of the Ocean, and (southwards) from the Mediterranean to the confines of the Soodàn (negro-lands). Hence the secular filiation of the Libyan tongue has revealed itself,—a tongue poor and simple, of which the type has perpetuated itself in the present idiom of the *Kabàïl*, athwart the course of ages and the vicissitudes of revolutions; without any other parchment than the surface of desert-rocks, without any other means of conservation than the *vis inertiæ* of tradition;—now known by the several names of *Berber*, *Chawéeya*, or *Kabyle;* which becomes a dialect called *Lar'oua* in parts of the Sahara, and *Shilhéeya* on the Atlas range.

[393] For the topographical distribution of these clans, see the excellent "Carte de l'Algérie divisée par Tribus," by CARETTE and WARNIER, Paris, 1846:—also, WILHELM OBER MÜLLER, *Atlas ethno-géographique*, "Les pays et les peuples * * * de la *Berberie* dans leur état actuel," Paris and Leipzig (Brockhaus and Avernarius).

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"The different names under which this idiom presents itself are recognized in a common appellative, as if forming branches of one and the same trunk. The word *Berber* comprises equally the Kabàïl of the littoral, the Chawéeya of the south-east, the Shilhéeya of Morocco, the Beni-M'zab, and the Touàriks: and, in the same manner that, all these dialects offer but slight differences among themselves, leaving no doubt whatever as to their community of origin, so the peoples that make use of them must be regarded as the scattered members of one and the same family." On the Jurjura plateaux there is a tribe still called (*beni*, Arabic for "sons") *Beni-Kébîla;* another on the Aures is (*owlàd*, = "children") *Oued-Shelih*, or *Shilhéeya;* and a third, *Beni-Berber:* and thus, without break in the chain of nomenclature, we can now ascend,—in the same language, race, and country—from the T-*Amazirg*, or *Amazirg*-T, or "*Free*-men," name given by this people to themselves,[394] through the *Mazée-eh* of Arab authors, to the *Gentes Mazicæ* of the Romans,—and thence, finally to the Μαξυες of Herodotus, in whose day they were βαρβαροι; that is to say, not *barbarians* etymologically, but these same old *Berberoi*, our "Berbers."

From the earliest times, when they were the "*bow*-country" and the "*nine-bow*-countries" of Egyptian hieroglyphics of the XIIth dynasty, 22 centuries B. C., through the period when they had become the *Misulani*, *Saboubares*, and *quinquegentani* of Latin writers, these Berbers have ever been the same "unconquerable Moors (*Mauri*);" to such degree, that their highland fastnesses amid the Atlas were designated as "mons ferratus" by the Roman legions, and "eladoòwa" (*the inimical*) by the later Saracenic lancers—

"(Gens) torva, ferox, procax, verbosa, rebellis."[395]

My above allusion to the familiar hieroglyphics for Libyan nations prompts reference to new inquiries that have just arisen as to the question—How far did the pharaonic Egyptians push their conquests into Western Africa? Manetho[396] says that MENES (Ist dynasty, B. C. 40 centuries) gained glory from his foreign wars; and that under NECHEROCHIS (IIId dynasty), not very long after, the "*Libyans* were defeated by the Egyptians:" but, until recently, no corroborative testimonies had been suspected, even, in Barbary itself. The first discovery of such monumental analogy was made by the daring travel-

[394] HODGSON (of Savannah, Ga.), cited in GLIDDON, *Otia Ægyptiaca*, pp. 117–29.

[395] As GIBBON somewhere says of the Armoricans: or, in the more explicit Castilian of a wrathy old Spanish writer, not partial to Mussulmans, HÆDO, —"Moros, Alarbes, Cabayles, y algunos Turcos, todos gente puerca, suzia, torpe, indomita, inhavil, inhumana, bestial; y por tanto, tuvo por cierto razon el que da pocos años aca acustumbro llamar a esta tierra *Barbaria*" (PASCAL DUPRAT, *Afrique Septentrionale*, 1845, p. 65, note).

[396] Text in BUNSEN, *Egypt's Place*, i pp. 611, 615.

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lers, Richardson, Barth, and Overweg,[397] in 1850; at a mountain-pass called Wadee Taldja, about nine days' journey after leaving Mourzook, the capital of Fezzàn. Here is the account, in the words of M. Vivien de Saint-Martin:—

"A little before reaching the descent we have just described, at the bottom of the valley through which one arrives at it, our travellers made a singular discovery. They found some figures engraved in deep cuttings upon the face of the rock [a very Egyptian method of recording conquests, as at Wadee Magàra, near Mt. Sinai, by *steles*]. The ancient people of the East loved thus to sculpture, upon the granite, warlike or religious scenes: there exist tableaux of this nature in Assyria and in Media, in Phœnicia and Asia Minor. Those which our explorers have discovered at the entrance of the [Sahara] desert have a peculiar character. They form several distinct tableaux, of which two are above all remarkable. One offers an allegorical scene, the other represents a scene of pastoral life. In the first, one beholds two personages, one with the head of a bird, and the other with a bull's, both armed with buckler and bow, and seemingly combating for the possession of a bull: the other shows a group of bulls that appear descending towards a spring to slake their thirst. The first of these two tablets has *a character altogether Egyptian;* and the *ensemble* of these sculptures is very superior to what the nomad inhabitants of the north of Africa could now execute [See Pulszky's Chap. II., pp. 188–192, on "Unartistical Races"]. The men of the neighborhood, moreover, attribute them to an unknown people who, they say, possessed the country long before them. Barth copied with care the two principal tablets, and he sent his drawings, accompanied with a detailed notice, to the learned Egyptologist of London, Mr. Birch; who will doubtless make them the object of a serious study. According to the very competent judgment of the traveller, the sculptures of Wadee Télissaréh [name of the place where they are found] bear in themselves the stamp of incontestable antiquity. One is struck, furthermore, by a characteristic circumstance, viz: the *absence of the camel*, which always holds nowadays the first place in the clumsy sketches [as at Mt. Sinai] traced, here and there, by present tribes upon other rocks in divers parts of the desert. It is now recognized that the camel was introduced into Africa by the first Arab conquerors of the Khalifate [this is not exact—say rather about the 1st century B. C.], during the VIIth century of our era: more anciently the only caravan beasts of burthen, between the maritime zone and Nigritia, were the ox and the

[397] GUMPRECHT, *Barth und Overwegs Untersuchungs-Reise nach dem Tschad-See*, Berlin, 1852;—as cited by SAINT-MARTIN, (supra, note 390) pp. 434–5.

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horse. Strabo relates (*lib.* xvii.) how the Maurusians [only a dialectic mutation of *Pharusians*, the PT*t*RSIM[398] of Xth Genesis], in order to traverse the desert, suspended water-skins under the bellies of their horses. Among several tribes of the Sahara, the ox is still used as a beast of transportation and carriage. Richardson saw a great number of them in a caravan that had just crossed a part of the Soodân."

A sight of Barth's copy would suffice to establish whether a breath of Egyptian art passed over the sculpture; but this narration is all I can now learn about it. Isolate in itself, this fact scarcely attracted my attention before; but here come some fresher coincidences of real Egyptian monuments, still further west in Barbary, that shed some plausibility upon these (by myself unseen) petroglyphs. An Egyptian black-granite royal statue, broken, 'tis true, bearing inscriptions with the name of THOTMES I (XVIIth dynasty, 16th century B. C.), has turned up at Cherchel, in Algeria;[399] and a Phœnico-Egyptian scarabæus, brought from the same locality, is now in Paris.[400] Now, as the cited scholars both coincide, those monuments may have been carried thither either by Phœnician traders, or by later Roman *dilettanti*. Neither of them proves anything for pharaonic conquests in Africa; but we have lived to see, in the case of Egyptian conquests in Assyria, such positive evidence grow out of the smallest, and, at first, most dubious indication, that I feel tempted to add another, inedited, fact (long unthought of in my portfolio) to the chain of posts — *epochas* left aside — now existing between ancient Egypt and old Mauritania.

On the 26th Dec., 1842, my revered friend, the late HON. JOHN PICKERING — a most scientific philologist — of Boston, gave me an impression[401] of a fragment of true Egyptian greenish-basalt stone, inscribed with some sixteen or eighteen pure hieroglyphical characters (without cartouche, but broken from a statue, part of an *arm* being on its reverse, in good relievo). This *was said* to have been picked up on the *ruins of Carthage*, by an officer of the U. S. Navy, during the Tripolitan war; and brought directly to this country,

[398] *Types of Mankind*, pp. 518–20.

[399] GREENE, *Bulletin Archéologique de l'Athenæum Français*, May, 1856, pp. 38–9.

[400] FRANÇOIS LENORMANT, *op. cit.*, June, pp. 46–7.

[401] Mislaid among old papers, I have no leisure now to search for it; but, from an entry made at the time in my "Analecta Ægyptiaca," I can state that its dimensions were *about*, length 7 inches, breadth 4½, and thickness 2. The hieroglyphics, *intaglio*, style Saitic, are cut on a sort of jamb or plinth. Until production of my copy, let me terminate with a note made on its reception:—"If it does not go in support of the conquests of the Pharaohs in Barbary, it proves *intercourse*, at least, with Carthage" — that is, if found at Carthage, for which I fear all proofs are now, after so many years, obliterated.

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where, when I saw it, the relic was in the possession of Mr. George Folsom, at Boston.

From this archæological digression, let us return to Barbaresque ethnography.

In the words of EBN KHÀLEDOON, M. Carette observes — "That which is beyond doubt is, that, many centuries before Islamism, the Berbers were known in the countries they inhabit; and that they have always formed, with their numerous ramifications, a nation entirely distinct from every other." Adopting for himself the only natural theory, that the Berbers were created for Berberia, Carette continues: — "Thus, it is an Arab writer, and the most judicious of the whole of them, that has himself done justice to all the tattle invented by his co-religionists,[402] and who reduces all the system of Berber genealogy to two facts, viz.: the biblical datum, which his quality of Mussulman obliged him to admit; and the local tradition that he had been able to collect himself." The following tables specify the state of Berber actualities.

TONGUES AND DIALECTS.

"The KABAÏL lie at the north,"		*Kebaïlèèa,*		Inhabit "the northern region of the Barbaresque continent."
"The SHILLOUHS and the BERBERS stand at the south — the first-named west, the latter east."	Shillouhs,	*Shilheèya,*	Shillouhs,	Inhabit "the southern portion of the empire of Morocco."
	Berbers,	*Lar'oua,* *Zenâtèèa,*	Berbers,	Inhabit the south part of Algeria, Tunis, Tripoli, and Saharan deserts.
"The CHAWEÈYA are at the centre."		*Shaweèya,*		Inhabit the ocean coast in Central Morocco, the northerly section of the Atlas chain, and, in Algeria, the zones of "landes" and the mountainous interior.

POPULATIONS.

	Arab origin.	*Berber origin.*	*Total.*
Morocco, Algeria, Tunis, Tripoli	4,800,000	7,500,000	12,300,000.

In 3 centuries the true *Arab* population has scarcely changed.

	POPULATION.
XVIth century	4,650,000
XIXth "	4,800,000

To render more perspicuous these ethnic subdivisions of a group of races hitherto very imperfectly discussed by Anglo-Saxon ethnologists, I append, from another good authority, long resident professionally in military Algerian service,[403] a curious specification of their several characteristics.

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[402] *Types of Mankind*, p. 512.

[403] BERTHERAND, *Médicine et Hygiène des Arabes*, Paris, 1855, p. 178. The same observer adds, when describing *hair* in the physical characteristics of these three types (p. 181): "Les Arabes sont généralment bruns, les Saharaouis blonds ou mieux châtain-clair, les Kabyles châtain: quelques-unes de leurs tribus comptent des familles entièrement blondes." Equally good specifications are in PASCAL DUPRAT (op. cit.) *passim.*

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BERTHERAND'S DIVISION OF THE PRESENT NATIVE INHABITANTS OF ALGERIA.

THE ARAB, (Originally *Asiatic,*) Inhabits the "Tell," hillocks, and marshy plains.	THE "KABYLE," (Correctly, *Berber,*) Inhabits the mountains (Atlas).	THE "SAHARÀWI," (Man of the *Sahara.*) Inhabits the Oases, and the sandy lands of the south.
Lives on cereals, melons, *couscous* (flour-pellets), and little meat.	Eats many oily cakes, and fruits.	Dates and milk.
Tends to numerous markets; possesses *fondoòqs* (farms); cultivates the cereals; has varied merchandize, — coffee, sugar, soap, &c.	Owns no *fondooqs;* comes above all to the Arab's marts, having few cereals himself; works at mining; makes honey; traffics in fruits.	Always in motion about the "Tell;" has no *fondooqs;* sells his dates; is generally poor.
Robbery abundant.	Crimes abundant.	Above all, a plunderer.
Occupies a country little wooded.	Country full of forests.	Has no wood except in the Oases.
Filthy; often in need of water.	Has always water.	Tolerably dirty; often in want of water, even for legal (Muslim) ablutions.
Has horses, herds of cattle, cows; flocks of sheep and goats.	Possesses chiefly mules.	Owns camels and horses.
Dwells in tents.	Resides in *goorbi* (mud hovels); hands ever in splash.	Lives in camel-hair tabernacles; earth-houses in the Oases.
Bilioso-lymphatic; large-bellied women.	Bilioso-sanguineous; women tall and well made.	Bilioso-nervous; pretty women.
Agriculturist; laboring on the land winter and summer.	Arboriculturist; works during the fruit-harvest.	Horticulturist; gathers dates; passes life in caravans.
Intelligence—very ordinary.	Intelligence—applied to arts and industry.	Great facility of conception—very lively imagination.

"It is to be remarked, that the *Koolooglèes*[404] [now fast running out], product of unions between indigenous females and the Turks [no longer encroaching colonists in Algeria since the Gallic occupation], are the strongest, the most intelligent [naturally so, because, under the name "Turk" is included what little now remains there of European captives, Circassian memlooks, &c.]: an important question as regards the fusion,—on which certainly depends the implantation of the French nation in Algeria."

Inasmuch, however, as my purpose is merely to direct ethnological attention towards analysis of the several primitive stocks, out of which the present Algerian population is compounded, I need now only interpose a "caveat" in respect to the opinions of Dr. Bertherand, and before him of Dr. Bodichon,[405] as to the ulterior benefits, by both of these skilful authors supposed likely to become the

[404] In their Frenchified cognomen, philologists will be inclined to recognize the Osmanlee-Turkish radical "oGLu," that is to say "son,"—as in the Làz-oglus of Nubia. PASCAL DUPRAT (*Afrique Septentrionale,* 1845, pp. 238–9), while showing that it is as often pronounced *Courogli* as *Coulogli,* derives it from the Turkish *kooleh-oglu,* "son of a slave:" to which may be added from ROZET (*Régence d'Alger,* 1833, II, pp. 272–92), that these Kooloogiees, nevertheless, are not half-breeds between Turks and Christian white female captives, "but children born from native Mauresque women married to Turks."

[405] *Types of Mankind,* pp. 106–7, 110, 374.

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future sequences of *amalgamation* between "types" so often repugnant, and amid "races" not less (in zoological, geographical, and historical, phenomena) *diverse*.

Thus then, EBN KHALEDOON recognized the same three distinct types of man we find about North-western Africa now, viz., the *Berbers*, the *Arabs*, and the *negroes* south of the Sahara. He demarcates the Berbers as follows:

"Now the real fact which dispenses with all hypotheses, is this: the Berbers are the children of Canaan, son of Ham, son of Noah; as we have already enunciated it, when speaking of the grand divisions of the human species. Their grandfather was named *Mazyh* [the *Masici* of the Latins, and the *Mazués* of the Greeks]; their brothers were the Gergesians (*Aghrîkeeh*); the Philistines, children of Casluhim [here he likewise takes the Hebrew plural for the *Shillouhs* to be a man!], son of Misraïm, son of Cham, were their relations. * * * One must admit [he adds peremptorily] no other opinion than ours."

Wiser than some modern ethnographers, our Arab author wholly rejects Berber "pretensions to Arabian origin: pretensions that I regard as ill-founded; because the situation of the places which these tribes inhabit, and an examination of the language spoken by them, establish sufficiently that they have nothing in common with the Arabs. I except only the *Sanhadja* and the *Ketama* (but God knows if this be true!), who, as the Arab genealogists say themselves, appertain to this nation,—an opinion that accords with my own." The Berbers apostatized from Islàm twelve times: nor was this religion implanted among them before TAREC (a Berber chief, who crossed over to Gibraltar, *gebel-Tarec*, "hill of Tarec," A. D. 711) went to Spain. "These chiefs bore with them a great number of Berber shèykhs and warriors, in order to combat the infidels. After the conquest of Spain, these auxiliaries fixed themselves there; and, since then, the Berbers of the Moghreb have remained faithful to Islamism, and have lost their old habit of apostasy." A portion of the Berbers, previously to that, had embraced Judaism; but "Idrees the First, descendant of El-Hassan, son of El-Hassan (grandson of Mohammed), having come into the Moghreb, caused to disappear from this country the very last vestige of these religions [Christian, Jewish, and pagan], and put an end to the independence of these tribes.

"We believe that we have cited a series of facts which prove that the Berbers have always been a people, powerful, redoubtable, brave, and numerous: a true people, like so many others in this world, such as the Arabs, the Persians, the Greeks, and the Romans. Such

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was, in fact, the Berber race. * * * From the Moghreb-el-aksa [extremest west] as far as Tripoli; or, to speak more exactly, as far as Alexandria; and from the Roman sea [Mediterranean] as far as the country of the blacks, the whole of this region has been inhabited by the Berber race; and this from an epoch of which neither the anterior events nor even the beginning are known,"—wrote EBN KHALEDOON, five centuries before the science of Ethnology even possessed a name.

So much being settled, I proceed to indicate points of geographical contact between the Berber and the true negro races; observing only, that the possession of dromedaries and camels has—since the Ist century B. C. as the earliest, and since the VIIth A. D. as the best historical date for any large scale—spread the Berber tribes in a semi-circle over all the northern confines of the *Belàd-es-Soodàn*, countries of the blacks.[406]

It is from the name of the tribe *Aourîka* that Carette, very reasonably, derives the name of "Africa;" and it is also at the oases Ouaregla, Temacîn, and Tuggurt,—grouped into one appellative, *Ouad-Rir'* (Moghrabee for *Owlàd-Righ*)—that mixture of Atlantic races and tongues with Arabian chiefly takes place. "*Righ*" meaning "separation;" "*Ouad-Righ*" signifies "the sons of the *Righ*," or of *separation*.

"The Arabs come from the tribes [Bédawees]; the Berbers pass as originating from the soil. It is, on the other hand, easy to recognize them; because the *Arabs have the skin tanned* like men of the white race who have sojourned long in southern countries; whereas the *Ruar'a*, properly so called, or autochthonous inhabitants, *have the skin nearly as black as the negroes*, and some few the traits of the black race. Albeit, they differ still essentially from the Nigritian peoples; and, in the country itself, they can never be confounded. I have seen many Rouar'a [new French spelling for *Rouàgha*] Berbers very much resembling the negro, and yet who would have considered it an insult to be confounded with the race of slaves. [*Amalgamation* with negresses explains these exceptional cases.] They characterize their color by no other epithet than *Khamri*, which signifies 'brown' [or *reddish*, always the Egyptian color for the Hamitic stock].[407]

"The autochthonous population of the 'children of *Righ*' (separation) mark, therefore, the transition of the color and the features

[406] D'ESCAYRAC DE LAUTURE (*Le Désert et le Soudàn*, Paris, 1854) has written one of the best books on this subject; but, having lost my copy, I am unable to quote an enterprising traveller who knows those regions so well.

[407] *Types of Mankind*, pp. 533:—*Otia Ægyptiaca*, p. 134.

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between the white race and the black race. It is not the tint, more or less bronzed, of the white populations of the south of Europe: it is a color altogether different, and which belongs to them,—much nearer to black than to white. Nevertheless, they have, of the black race, neither the flat nose nor the thick lips, any more than the woolly hair; although, however, these traits are not those of the white race.

"It is an intermediary race, half-way between; attached, at one and the same time, to the two extreme races to which it approximates and which it separates." Such, finally, is a *précis* of Berber questions at the present hour; which cuts them loose, as another type of man, from all other races of humanity,—excepting as concerns their *Hamitic* source and their linguistic affinities, on which M. Maury (supra, p. 142–3) has sufficiently cleared up obscurities. In common with the Hebrews, the Egyptians, the Chinese, the American aborigines, and some others whose earliest *locum tenens* has not yet been quite so sharply trenched in ethnology, the *Berbers* represent an especial and independent group of proximate races; being the real human component of what Agassiz[408] has so conclusively determined, in zoological distribution, as the "North African *fauna*" of the "European *realm*,"—populations to whom the appellative *Atalantidæ* [the root of which is certainly *Berber*—a name for part of Mt. Atlas[409]] would, etymologically, geographically, and historically, be appropriate for convenience of ethnic classification.

The next step ought to take us to the basin of the Senegal, where this river constitutes the dividing line between these Atalantidæ with their Arab companions, and those true negro races whose habitat has never voluntarily lain to the north of it. Of course, before the *camel* reached Barbary, neither the Berbers nor the Arabs could have traversed the Saharran wastes to hunt the negroes; nor the latter have come across it northwards for the mere satisfaction of becoming enslaved by those superior types of man.

To do so properly, one should begin with the first discovery of this river by Europeans, about the XIVth century, and trace through the works of Rochefort (1643), Gaby (1689), Labat (1728), Adanson (1757), Golberry (1787), La Barthe (1785), Durand (1802), Mollien (1818), Matthews (1787), and Laing (1825), the progress of knowledge as regards its now varied inhabitants. Only in three of the above travels have I been able to do it; but deficiencies are

[408] *Types of Mankind*, p. lxxviii, and "Map."

[409] See, on the probable derivation of "Antilia" (Antilles) from *Atlantis*, the charming and erudite disquisition of D'Avezac, *Les Îles Fantastiques de l'Océan Occidental au Moyen-Âge*, Paris, 1845, p. 27.

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tolerably well made up in the excellent work of RAFFENEL.[410] Under the specific designations,—each people being also subdivided into tribes, of *Maures* (Arabs), *Foulahs*, *Sarracolets*, *Bambaras*, *Mandingos*, and *Yoloffs*—this accurate observer manifests their distinctions of type and character; proving, moreover, that the white man's intelligence merges into Nigritian brutality in the same ratio that, step by step, one travels south from the Sahara into negro-land; and that the color of the human skin is darkened by *race*-character, not by imaginary "climate;" because, the Semitic Arab, who has been there about six centuries, is no blacker than his ancestors or contemporaries were, or are now, in Arabia itself.[411] LUKE BURKE's argument[412] bears out my assertion; and I have since beheld, in the *Galerie Anthropologique* at Paris, the beautifully colored portraits of all the races alluded to.

"Let us now pass on to Africa. Here we find the negro races occupying some of the most torrid regions, but not exclusively. Arab races have been living in the midst of them for thousands of years, and yet they are only brown. Some of them, indeed, are nearly fair; for their blood has been repeatedly mixed with that of northern tribes; and, where such is the case, we find that the climate does no more than simply tan or freckle such parts as are generally exposed to the light. Still farther to the south,—farther even than the true region of the negroes—extend the tribes of the *Galla*, who have of late years conquered a large portion of Abyssinia. These have for ages occupied the plains of Central Africa, almost under the equator; and yet they are, at the utmost, brown, and many of them comparatively fair. But, more than this, there are nomadic families of the Tawrick race, who have wandered from an unknown period among the burning sands of the great desert itself, and still retain their fair complexions. They are, indeed, no more affected by this torrid region than most Europeans would be after a residence there of a few months.

"We have already spoken, in a former chapter, of the Kabyles of the Auress mountains in Algiers,—one tribe of whom have not merely a fair and ruddy complexion, but also hair of a deep yellow.

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[410] *Op. cit.*, Atlas, colored likeness of "Maure de Sénégal;"—who might be well contrasted with another good portrait from the Abyssinian side of Africa, "*Djellâb* marchand d'esclaves du Cordofand," in the *Revue de l'Orient*, Paris, 1854, Pl. 31.

[411] *Exploration du Sénégal, depuis St. Louis jusqu'à la Falémé, au delà de Bakel; de la Falémé, depuis son embouchure jusqu'à Sansandig; des mines d'or de Kéniéba, dans le Bambouk; des pays de Galam, Bondou, et Woolli; et de Gambie, depuis Baracounda jusqu'à l'Océan*, during 1843–4; Paris, 1846, 8vo, with folio atlas.

[412] *Ethnological Journal*, London, No. 2, July, 1848,—"Varieties of Complexion in the Human Race," p. 76–7.

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Dr. Shaw, the traveller from whom we quoted, gives a still more decided testimony against the theory of climate, in speaking of the Moorish women. His words are: 'The greatest part of the Moorish women would be reckoned beauties even in Great Britain, as *their children certainly have the fairest complexion of any nation whatever.* The boys, indeed, by wearing only the tiara, are exposed so much to the sun that they soon acquire the swarthiness of the Arab; but the girls, keeping more at home, preserve their beauty till they are thirty, at which time they are usually past child-bearing.'—(Travels in Barbary and the Levant, fol. 1738, p. 120.) Here we perceive the true effects of climate on the fair races: a temporary darkening of the parts exposed to the sun, the children of people so darkened born perfectly fair! Who can tell the number of ages that the Moors have inhabited the north of Africa? Who can say that their present region is not their original country? And yet here they are still, a perfectly fair race.

"Southern Africa also presents us with many striking illustrations of the fallacy of the theory of climate. We shall content ourselves with citing two of the most remarkable, viz., those presented by the physical peculiarities of the Hottentots and Bosjesmans. These two races have been considered as one; but only by those who believe in the great modifying power of circumstances. They are evidently distinct. The Bosjesmans are pigmies; the Hottentots, where pure, tall and large. Persons of intermediate stature are, of course, met with; because two races so much alike in most respects, residing near each other, must necessarily have intermarried in the course of ages; but there is no conceivable reason why, except as distinct races, the one should be active, restless, comparatively brave, and of a stature seldom exceeding four feet nine inches, while the other is tall, large, timid, and exceedingly sluggish. In most other respects their organization is similar; and they differ from all other portions of mankind in the nature of the hair and in two remarkable peculiarities in the female structure. They are in the midst of races widely differing from them,—negroes on the one hand and Caffres on the other; both black, while the Hottentots and Bosjesmans are simply of a light yellowish brown. How can these facts be accounted for except as differences of race?"

A view of some curious analogies, *à propos* of the Gaboon riverland, may here be given.

The chart (further on), illustrative of the distribution of the *simiadæ* in their relation to that of some inferior types of man, with the text accompanying, suggests a few hints to ethnographers. Among them

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is the fact, that the highest living species of Monkeys occupy precisely those zoological provinces where flourish the lowest races of mankind.

It is well known, that all negroes found in Algeria (where their lives are also curtailed, as in Egypt, by an uncongenial climate), are brought over the Sahara, by the inland caravan-trade, chiefly from the neighborhood of the Niger and Senegal rivers. This shall be made evident in elucidating the Saharran fauna of the African realm on our *Tableau*. From the Senegal, Gambian, Joliba, and other streams, as well as from around Lake Tchad and its affluents, there is, and has been, ever since the Arabian *camel* was introduced, about the 1st century B. C.,[413] a ceaseless flow of nigritian captives to the

[413] DESMOULINS, *op. cit.*, *Mémoire sur la Patrie du Chameau à une Bosse, et sur l'époque de son introduction en Afrique;* pp. 359–88: — I am acquainted with the objections raised by Quatremère (*Mémoires de l'Acad. Roy. des Inscriptions et Belles Lettres*, XV., Paris, 1845; pp. 393–5.—); but Egyptological reasons, by him disregarded, lead me to deem them inconclusive.

A word here about "Camels." Mention was made (*Types of Mankind*, p. 729, note 610), of a MS. memoir of my own, entitled "Remarks on the introduction of Camels and Dromedaries, for Army-Transportation, Carriage of Mails, and Military Field-service, into the States and Territories lying south and west of the Mississippi, between the Atlantic and Pacific coasts—presented to the War-Department, Washington, Oct. 1851:"—and dedicated to the HON. JEFF. DAVIS, then U. S. Senator,—who had previously, at my instigation (*Nat. Intelligencer*, Wash., D. C., 27 March, 1851), introduced a camel-bill into Congress.

It is known to everybody in this country that the United States Transport "Supply" has already made two trips, one to Alexandria, and the other to Smyrna, and brought over to Texas some 80 of these animals, in good condition. The undertaking could not fail to be successful,—1st, because the ship was commanded by my old friend (welcomed "chez moi" at Cairo as far back as 1835), LIEUT. DAVID PORTER, U. S. N.; — and 2d, because the War Department has merely carried out (with but *one* solitary exception) every detail—down to the most minute—of my "Remarks" aforesaid, in regard to the importation of these animals.

Following the maxim—"je reprends ma propriété où je la trouve"—I claim here the credit of chalking out the lines upon which these *Camels* reached America; confident that if (and I hardly think such contingency possible after the instruction the party in charge had from myself), there should be any failure in developing the unbounded utility of these quadrupeds after their landing, such eventuality can proceed solely through United States' official mismanagement.

Meanwhile, I presume my above-mentioned MS. has become mislaid at the War Department; because I see that MR. MARSH, in his very nice little work (Boston, 1856), on the "Camel," whilst gratefully acknowledging the various documents on the subject lent him by the War Department, with honorable mention of the *Authors* of each paper, has nowhere alluded, either to myself (who planned the whole affair for them in writing, 1851–6), or to my said "Remarks."

Now, whether my MS. (bound in red morocco, too) be or be not in existence at the War Department, it so happens that, knowing perfectly well the sort of principles current at Washington — District Columbia,— I had taken 3 precautions to ensure preservation of my ideas therein; 1st, by having a fac-simile copy made by the hands of a third party before transmitting the original from Pittsburg, Pa., to the Department; 2d, by securing sufficient collateral evidence of my connection with that Institution from first to last; and 3d, by preserving, in a patent Salamander safe, my MS. copy, with every scrap of correspondence

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slave-marts of Timboctoo, Mourzook, and other oases; whence they become distributed, by Touàrik and Arab *gellàbs*, throughout Marocchine, Algerian, Tunisian and Tripolitan, territories. Now, the various negro populations of the above-named rivers are by no means the most austral nations represented in these cities' local slave-markets; because such distinct stations are, in their turn, re-filled by caravans from the interior; whose "*exploitation*" of nigritian prisoners stretches backwards to Ashantee, Benin, Dahomey, Adamoua, &c.: whither again converge endless radiations of still more inland slaves, whose hunted-grounds reach southwards to an unknown extent, but certainly as far as Congo. The consequence is, that in Algeria, as at Cairo, numberless varieties of negroes, from many countries, are represented, in human slave-basaars.

Among these, a peculiar type is frequently seen even now, but was far more abundant prior to the abolition of that piratical Deyship, by the French in 1830. Of this race I clearly remember two huge and ferocious specimens working about Mohammed Ali's arsenal at Alexandria for a long time, between 1827 and 1835; when I think they must have succumbed to the great plague of the latter year. They had been landed from the crews of an Algerine frigate and a corvette that, sent as quota to the Pasha's squadrons against the Greeks, rotted their hulks out in our western harbor, after the fall of their quondam owner at Algiers. Witness for years, and once assistant retributor, of the brutality of these two Algerine negroes, their physiognomies are ineffaceable from my memory; being besides totally distinct from any negro race brought down the Nile to Cairo.

It was, therefore, with satisfaction that I lately recognized the features of my old acquaintances, in two plates, wholly distinct in origin, representing the same type abiding in French Algeria: with the only difference that the men I knew were almost black in color.

The *profile* of one is fac-simile-ed in No. 26 of our *Tableau* under the name of "Saharran-negro;" partly because this individual, or his parents, must have been brought across the great desert, and partly

between myself and others,—from Dec. 1850, at Philadelphia, down to June 1856, at Paris—relative to this grand experiment of naturalizing the *Arabian* camel, amidst its homogeneous climatic and other conditions, in the south-western States and Territories of the United States on this continent.

I hope soon to have a little more leisure than just at this moment; when it will afford me great pleasure, the public much entertainment, and the HONORABLE MR. MARSH peculiar gratification, to show how easy it was to "see through a millstone, after somebody had made a hole in it," as concerns the successful importation of these **Camels**—no less than this gentleman's astounding mesmeric clairvoyance in guessing at every fact and idea contained in that fac-simile copy of my "Remarks" aforesaid, during the period that it lay locked up in a patent Salamander safe. Philadelphia, 10th February, 1857.—G. R. G., "(formerly) United States Consul at Cairo."

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because numerous historical analogies lead me to infer, that it is towards Senegal that his typical family should be sought for. Its original colored drawing, much larger in size, being one of about forty beautifully-executed portraits taken on the spot by the *Commission scientifique d'Algérie*, is now suspended in the *Galerie Anthropologique* of the Parisian Muséum. Published by the Chief of that expedition, the late Bory de Saint-Vincent,[414] my copy has been traced upon stone directly from Bory de St. Vincent's plate, in my possession. He thus briefly describes this head's history:—

"No. III., finally, is the ETHIOPIAN type. This head was that of a bandit native of the *Soodàn* [negro-land], killed in the *Sàhel* [Atlantic slopes towards the Sahara], where one of the sabre-cuts with which he was smitten shows, over the left parietal, how much more considerable the thickness of the bones of the cranium is in negroes than in other men. * * *

"In disposing," proceeds our author, "the bony cases [skulls] that I present to the Academy, upon the same plane one after another, we are first struck by the manner in which, on starting from the Atlantic type [or *Berber*, see a semplar gradation in our *Tableau*, No. 22], wherein the facial angle is almost a right one, the gradual prominence of the upper jaw becomes considerable. This elongation is such in the Ethiopian, that the resemblance of his skeleton to that of the large monkeys becomes striking [*ubi supra*]: at the base of a sufficiently-high, but laterally compressed frontal region, the supra-orbital ridges project almost as considerably as those of a middle-aged *Orang*. Other bony prominences, not less marked, crown the temporal region at the attachments of the temporal muscles; a very pronounced depression exists at the root of the nose, of which the bones proper are also the shortest, and so disposed forwards that their situation becomes nearly horizontal. Certain airs of animality result from this osteological *ensemble*; and, the facial traits not being less strange, the breadth of the nose with its widely-open wings, and the prodigious thickness of the lips, whose lower one seems to be quasi-pendent, impress upon this Ethiopian's profile the aspect of a sort of muzzle."

Following this famed anthropologist's suggestion, I now submit, to the reader's inspection, four wood-cuts (A, B, C, D, on next page).

Few remarks suffice to establish authenticity. The palpable ana-

[414] *Sur l'Anthropologie de l'Afrique Française* (read at the Académie des Sciences, 30 June, 1845)—extract from the *Magasin de Zoologie, d'Anatomie comparée et de Paléontologie*; Paris, Oct. 1845; pp. 13–4; and Plate Mammifères, Pl. 61, figs. "No. III. *Type Éthiopien.*" BORY DE ST. VINCENT is the well-known polygenist; author of *L'Homme* (Homo). *Essai zoologique sur le Genre Humain*; of which I am only acquainted with the 2d edition; Paris, 2 vols. 18mo., 1827.

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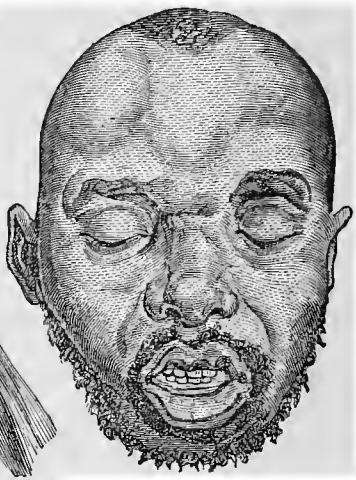
logies and dissimilitudes, between an inferior type of mankind and a superior type of monkey, require no comment.

A.

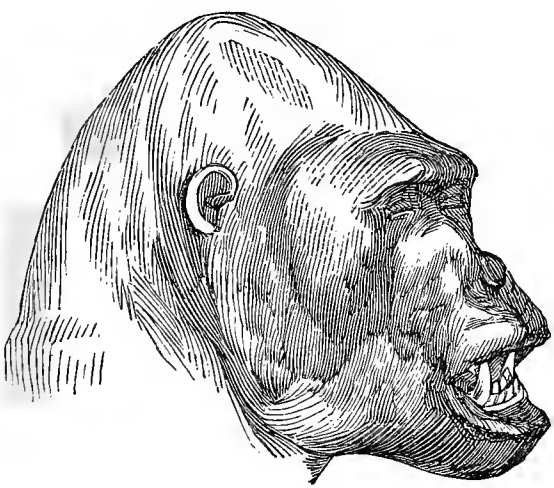
Three-quarter view of another Algerine negro— "Biskree." [415]

B.



Front view of our Saharran-negro. Compare his tinted *profile* in No. 26 of our "Ethnographic Tableau,"—from B. de St. V.'s plate.

C.



Gorilla-Gina, Is. Geoff. *Troglodytes-Tshego*,— Duv. (Three-quarter view.) [416]

D.

Same animal. (Front view.)

[415] *Galerie Royale de Costumes*, folio, colored, Paris (Aubert & Cie., Place de la Bourse, No. 29); "Porteur à Alger," Pl. 15.

[416] *Annales des Sciences Naturelles*, 3me série, *Zoologie*, Paris, 1851; xvi. Pl. VII., figs. 1, 3; and pp. 154–92. — Cf. also, Duvernoy, *Comptes rendus de l'Acad. des Sciences*, 1853; xxxvi. pp. 924–36.

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Fig. B—as above stated, is the front view of the "Saharran Negro" of whom our *Tableau*, No. 26, gives the profile. The color of the original is a livid tawny black, chiefly due to drainage of blood after decapitation; for it was drawn on the field of the skirmish. By comparison with the profile, its *Simian* expression will be the better perceived.

Fig. A—has no history, beyond the reference that his name was "Biskry," and that he happened to be a "Porter at Algiers:" but nomenclature identifies the route by which he, or his progenitors, reached Algeria, in the Oasis of *Biskra.*[417] I infer that this was his nick-name (soubriquet); because, in Arabic as in Hebrew,[418] the suffix YÈ, *ee* (*iod*), to a geographical appellative indicates the "being of," or, "belonging to" a locality; so that our BISKRÈE, from Biskrâ, means in English the *Biskr-ian.*

Hence we learn the road of his transit over the Sahara. In the original plate the color of his skin is a blackish-red brown; and we know that almost every shade, from a dirty yellow to a full ebony, is to be met with among aborigines of Africa—on which hereinafter. I have purposely chosen this sample, which is wholly independent of Bory de St. Vincent's, to substantiate the existence of such particular types in North-western Africa. Thirty-three years have passed since, as a boy, I saw the bronze "Mori" (Moors) in the Arsenal of Leghorn. I stand corrected if this man is not one of the same types.

Figs. C and D—are front and profile heads of the specimen, as yet unique, of a perfect adult *Gorilla;* which, preserved in spirits, was sent to the Parisian *Muséum d'Histoire Naturelle*, in 1852, from the Gaboon River, by Dr. Franquet.

If hypercriticism[419] should object to renewed selection of *extreme*[420]

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[417] PRISSE D'AVENNES's *Revue Orientale et Algérienne*, Paris, 8vo., 1852; i.—PRAX, "Communications entre l'Algérie et le Sénégal," pp. 275–95, and *Map:*—also CAMPMAS, "Oasis de Biskra;" pp. 296–303.

[418] *Types of Mankind*, pp. 531–2.

[419] The London *Athenæum* (June 17, 1854), in reviewing our last work, did not like the contrasts afforded by placing the Apollo Belvidere, an African negro, and a Chimpanzee, on the same plate. It was shown in the next number (*Athenæum*, June 24), that they were copied from the accurate designs of an English artist—"William Harvey, the pupil of Bewick."

[420] LUKE BURKE (*Ethnological Journal*, London, New Series, No. 1, Jan. 1854; p. 88) happily says—"The best means of treating man properly is to treat him as we do the most clearly-defined portions of general zoology. Should we not, for instance, better promote our knowledge of the dog, by carefully noting the most aberrant of his forms, than by any selection of average skulls? And why should it not be so with man also? We would, therefore, take the liberty of suggesting to all engaged in pursuits of this kind, that the best mode of consulting the interests of science is to think less of averages and more of individualities."

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samples for proper illustration of a zoological subject; and peradventure exclaim that a decollated negro, upon whose features are stamped the last agonies of violent death, is not a fit exponent of the type I call "Saharran-negro" until its natural province be made known, my rejoinder would be simply this:—our *Biskreean*, from the same regions and in "species" identical, seems to have been in full blossom when his portrait was taken at Algiers; and, on the other hand, I claim that some allowance of similar kind ought, in fairness, to be made in behalf of a poor homicided *Gorilla*, whose facial expression alcohol has doubtless distorted and contracted. Surgeons and physicians, when elaborating facts in their medical publications, habitually leave aside "sentiment" as merely obstructive to knowledge. It is time, I think, that ethnographers should imitate such example.

The disquisition accompanying our *Monkey-chart* explains some geographical coincidences between species of the simiadæ and some races of mankind; but, by way of anticipation, it is remarkable that this type of anthropomorphous apes actually dwells in Africa not a thousand miles from the region inhabited by the above type of negro.

But there are still lower forms of the negro type precisely in those regions around the Bight of Benin where the two highest species of African anthropoidæ, viz., the *Gorilla* and the *Chimpanzee*, overlap each other in geographical distribution. The best of authorities on the latter subject, Prof. Jeffries Wyman, of Harvard University,[421] wrote long ago:

"Whilst it is thus easy to demonstrate the wide separation between the anthropoid and the human races, to assign a true position to the former among themselves is a more difficult task. Mr. Owen, in his earlier memoir, regarded the *T. niger* as making the nearest approach to man; but the more recently discovered T. gorilla, he is now induced to believe, approaches still nearer; and regards it as 'the most anthropoid of the known brutes.' This inference is derived from the study of the crania alone, without any reference to the rest of the skeleton.

"After a careful examination of the memoir just referred to, I am forced to the conclusion that the preponderance of evidence is unequivocally opposed to the opinion there recorded; and, after placing side by side the different anatomical peculiarities of the two species, there seems to be no alternative but to regard the chimpanzee as holding the highest place in the brute creation."

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[421] *Crania of the Eugé-ena* (Troglodytes gorilla, Savage) *from Gaboon, Africa*, read before the Boston Society of Natural History, Oct. 3, 1849;—from the *American Journal of Science and Arts*, 2d series, vol. ix; p. 9.

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On the other hand, Prof. Agassiz remarked, in our former work;[422] "The chimpanzee and gorilla do not differ more one from the other than the Mandingo and the Guinea negro: they together do not differ more from the orang than the Malay or white man differs from the negro:"—and again, in the present ["see Pref. Rem."]: "A comparison of the full and beautifully illustrated descriptions which Owen has published, of the skeleton and especially of the skulls of these species of orangs, with the descriptions and illustrations of the different races of man, to be found in almost every work on this subject, shows that the orangs differ from one another in the same manner as the races of men do; so much so that, if these orangs are different species, the different races of men which inhabit the same countries, the Malays and the Negrillos, must be considered also as distinct species."

For evidence that, in the same west-African localities, there exist *inferior* grades of negroes, lower than anywhere else known, there is an unexceptionable and recent authority, in a good ethnologist, the missionary WILSON,[423] who describes these "degenerate branches" —a sort of negro-gypsies—with great unction and precision.

But we possess still later information, and from a daring and reliable naturalist, M. DUCHAILLU,—deservedly lauded in Dr. Meigs's chapter [*supra*, p. 324, note 243]. I was present at that meeting of our Academy, and fortunate enough to hear Mr. Cassin read Duchaillu's long and very matter-of-fact report. An interesting discussion then arose, opened by some critical comments of Mr. Parker Foulke, among the members present; whence two facts were elicited: 1st, that, near Cape Lopez, Duchaillu had shot both *Gorilla* and *Chimpanzee*, the skins, &c., of which are on their way to the Academy; and, 2d, that he had just visited (his letter bears date Oct., 1856), up the *Muni* river, north of the Gaboon, two extraordinary negro-tribes, viz., the *Pauein* (whom Wilson calls the "Pangwee"—different from the M'pongwee) and the *Oshebo*, whose habitats are divided by that stream. As Mr. Foulke observed, they are the first historical instance of *cannibalism* elevated into marketing traffic; for the *Pauein* do not eat their own dead, but exchange them, across this river, for the carcases of the *Oshebo!* M. Duchaillu quietly observes that he could n't eat meat in that country.

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[422] *Types of Mankind*, p. lxxv.

[423] *Anonymous*, "Ethnographic View of Western Africa," a pamphlet of 34 pages, New York, 1856; p. 23. It is from Dr. Meigs's chapter (supra, p. 326) that I learn the name of this clever writer; who inadvertently quotes, as if he had found, in the excellent works of Mr. W. B. HODGSON, what he can find nowhere else than in my *Otio Ægyptiaca*, and in our *Types of Mankind*.

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Now, whilst these lowest tribes of negro man-eaters dwell in the same zoological province as the black *Gorillas* and *Chimpanzees*, is it, I would ask, through fortuitous accident that, where the red orangs of the East Indian Archipelago roam the jungle, there should exist a cannibalism almost parallel, although not mercantile,—as shown in the reddish *B'hattas*, &c., who, some years ago, devoured two English missionaries, amongst other instances?

It is to be remarked, however, that, as voyagers observe, cannibalism in Polynesia, and also in New Zealand,[424] does not seem so much to have been an instinctive craving among *Maori* nations, as to have gradually grown into a habit of luxurious feeding among nautical wanderers who, in their vicissitudes of navigation, from island to island, were often compelled to eat each other.[425]

It is time to arrest the course of these remarks; the object of which chiefly is, to eliminate from further discussion some objections that the unavoidable brevity of the ensuing sections will compel me to pass by unnoticed. Confined within some 200 pages, my contribution to the present volume must fall very far short of the materials collected for its elaboration. I apprehend, nevertheless, that readers of the preceding commentary are now prepared for the assertion that a current phrase, "the unity of the human *species*," if it possess any real meaning, leaves us in utter darkness as to the scientific question of mankind's lineal derivation from a *single pair;* or as to its counter theory, the plurality of origin from many pairs, situate in different geographical centres, and possibly formed at different epochas of creation or of evolution. Chronology we have found to be a "broken reed" for any event anterior, say, to the 15th century B. C.: so that there exists no positive limit, determinable by ciphers, to human antiquity upon earth, save such as palæontology—a science commenced by Lister in England, Blumenbach in Germany, and founded on true principles by Cuvier in France—may in the future discover. To talk of *years*, or hundreds of them, in the actual state

[424] "Ces abominable coquins!"—as the gallant CAPITAINE LAPLACE (*Voyage autour du Monde*, &c., *sur la corvette la "Favorite,"* 1830–2, Paris, 8vo, text, 1835, IV, pp. 8–51) indignantly exclaims, after witnessing the morality of their women and the human repasts of the men. The same pages give an excellent idea, too, of the missionaries in that remote island.

[425] "It will probably be found, on further examination, however, that, with the exception of the disgusting practice of *cannibalism*, the black color, with crisped hair, common to all, there are as many points of difference between the [*Negrillos*] different islanders of the group, as between any two races in the Pacific," says ERSKINE (*Journal of a Cruise*, &c., *in H. M. S.* "Havannah," London, 8vo, 1853, p. 16). He confirms also LAPLACE on missionaries; as does DU PETIT THUARS (*Voy. autour du Monde*, &c., *frégate la "Venus,"* 1836–9, Paris, 8vo, text, 1843; I, pp 317–36; II, p. 373; IV, pp. 70–88); not to mention MŒRENHOUT (*Isles du Grand Océan*, Paris, 8vo, 1837; I, pp. 216–357; II, pp. 283–322, 515).

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of this science, is simply absurd,—a mere illustration of what Greg[426] properly stigmatizes as "the humiliating subterfuges resorted to, by men of science, to show that their discoveries are not at variance with any text of Scripture." Other conclusions the reader will draw for himself.

On the majority of these problems my own opinions assumed definite shape between 1845 and 1850; but, inasmuch as it is customary for authors to utter, at some time or other, their individual "profession of faith," I may here be permitted to recall, as mine, some passages of the *third* lecture on "Egyptian Archæology," delivered[427] in my last course at this city, more than six years ago. They have since remained inedited; and the only value I attach to them accrues from the circumstance that, written at the suggestion of my honored friend the late Samuel George Morton, they have become to me a *memento* of past interchanges of thought with one of the noblest of men.

"Creative Power has veiled, equally, from human ken the *origin* "of man and his *end*. If any argument were required to impress "upon my mind the *beneficence* of the Creator towards his crea- "tures[428]—any fact, that in the brain of a human being of cultivated "intelligence, and which, whispered to each of us in the 'still, small "voice' of conscience, proves the goodness of Deity, not merely to "mankind, but to all animate substances created by his will,—it is, "that, like every other animal, Man knows not the hour of his birth "or of his death; can discover, by no process of retrospective ratio- "cination, the moment when he entered this life; nor ascertain, by "anticipation, the precise instant when he is to depart from it.

"An example will illustrate my meaning:

"Leaving aside, in this question, those traditionary legends of our "respective infancies, which, in themselves, may be *true*—although "received, as inevitably they must be, on the "ipse dixit" of others, "to us these accounts of the cradle and nursery are not *certain*,[429]— "each individual's memory can carry his personal history back to the

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[426] *Creed of Christendom*, pp. 2, 45–51.

[427] Philadelphia, Chinese Museum, 6th January, 1851:—"North American and Gazette," Jan. 7.

[428] Beyond all works, that of my venerable friend, M. Hercule Straus-Durckheim (*Théologie de la Nature*, Paris, 3 vols. 8vo, 1852) contains the ablest demonstration of Creative wisdom and benevolence through the science of comparative physiology, in which the author of "Anatomie descriptive and comparative du Chat," is known by naturalists to be an unsurpassed adept.

[429] Vico, *Scienza Nuova* (translated by "l'Auteur de l'Essai sur la formation du Dogme Catholique," Paris, 12mo, 1844; pp. 41–4)—Axioms IX–XVI; on the distinction between the "true," and the "certain."

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"period when logical inductions, from facts aquired by himself in "maturity, can determine that *he* must have been about four or five "years old. Some persons' memories can recede farther, and recol- "lect events coetaneous with their second year of infancy. Beyond "that, all is *blank* to personal reminiscence. Now, it is from this "fact—a commonplace one, if you please—that Creative benevolence "resiles as a sequence: because, human science might possibly attain "to such perfection (arguing her future triumphs from her present "conquests over the past), that, could an individual determine the "precise instant when his body had been quickened by the spark of "life, he might, as a chance-like possibility, be able to deduce from "it also, beforehand, the moment of his decease. *Hope* of life in this "world, beyond such given point, being thereby extinguished in his "breast, every stimulus to exertion, moral or intellectual, would "vanish with it; and such man would rapidly sink, through mere "physical indulgences, to the level of the brute. That misshapen "precursor of astronomical science, *Astrology*,—which, originating "at least 2500 years ago[430] in Chaldaic Magianism, sat, for centuries, "like a nightmare upon the torpid intelligence of our own 'middle "ages'—really dared, with Promethean boldness, to cast man's "horoscope, and to determine the instants of his nativity and death, "through deceptive manipulations of an astrolabe: but this hoary "imposture, with its Egyptian sister, *Alchemy*, and their cousin "*Vaticination*, deludes now-a-days no educated and sane mind.[431]

"Why do I weary your intelligence with such truisms? Simply, "in order to posite before it one syllogistic deduction, as an incontro- "vertible point of departure in strictly-archæological inquiries into "*human origines*, viz: that, inasmuch as the beneficent Creator has "shrouded, from each individual man, knowledge of his personal "*beginning* and his *end;* and, as all Nations are but aggregations of "individuals, it is, *ergo*, absolutely impossible to fix, chronologically "speaking, the eras at which primeval Nations, whose existence is "antecedent to the human *art of writing*, severally were born.

"Geology, offspring of the XIXth century, can define on the "rocky calendar of the earth's revolutions, the particular *stratum* "when humanity *was not:* but, the intervals of solar time existing "between such stratification and our erroneous year[432] *Anno Domini*

[430] De Rougé, "Noms égyptiennes des Planètes," *Bulletin Archéologique de l'Athenæum Français*, Mars, 1856—shows how the system was developed in *Démotic* times.

[431] "The science of the *Aruspices* was so eminently absurd, that Cato, the Censor, used to say he wondered how one Aruspex could look at another without laughing out:"—McCulloh, *Impartial Exposition of the Evidences and Doctrines of the Christian Religion*, Baltimore, 8vo, 1836; p. 65.

[432] *Types of Mankind*, pp. 665–7; and *supra*, p. 479.

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"1851, cannot be expressed by arithmetic; is attainable through no "known rule of geometry; and, to the time-measurer, presents no "element beyond incalculable and incomprehensible cycles of gloom "—the depths of which, like those of the ocean, his plummet can- "not fathom.

"What ultimate goal remains, then, for our aspirations in pursuit "of knowledge about 'the beginning of all things,' when the initial "point—modern, in contrast with invertebrata, or more inform ves- "tiges of Nature's incipient handicraft, discerned in the 'old red "sandstone'—of mankind's first appearance on this planet lies "beyond the reach of our contemporaries' solution; and, according "to my view, of human mental capability, past, present, or to come? "What can the Historian hope to achieve through disinterment, "from the sepulchre of by-gone centuries, of such fragments of hu- "manity's infantine life as, preserved fortuitously down to our time, "archæology now collects for his examination?

"In the minds of many colleagues in Egyptology, whose philoso- "phical *results* it becomes my province to lay before you; if we will "consent to figure to imagination's eye the aggregate histories of the "earth's nations as if these were embodied pictorially into *one man* "—that is, were we to personify humanity in general by one indivi- "dual in particular,—the world's history, like the lifetime of a per- "son, will classify itself naturally into something like the following "order: presupposing always that we symbolize our idea of the pend- "ing XIXth century, by the figure of a man in the prime of life, fast "approaching the acme of physical, mental, and moral, perfection— "say, with the old physicians, that we take him at his 'grand cli- "macteric'[433] of five times seven years, the thirty-fifth of his age.

"Inquiring next of our symbolic man his individual history, we "find that, without effort, his memory will tabulate backwards the "events of his manhood, twelvemonth by twelvemonth, for fourteen "years, to his traditionary twenty-first birthday; when he attained "legal rights among his fellows. He will equally well narrate the "incidents of the preceding seven years, during which he had served "apprenticeship, finished a collegiate education, or otherwise deve- "loped, in this interval of adolescence, the faculties allotted to his "share: but he will candidly acknowledge how little he then knew "of the great world he was preparing for, and how completely sub- "sequent initiation into the higher mysteries of manly life had altered "the preconceptions of his noviciate. Seven years still farther back, "from the fourteenth of his age, his recollections will carry him; and

[433] FLOURENS, *Longévité* (*vide supra*, note 162):—LUCAS, *Hérédité*, I, pp. 254–84.

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"schoolboy-days are vividly stamped upon the leaflets of memory. "Youth, however, merges insensibly into childhood; but beyond his "seventh year even the child's remembrance fades away into infancy.

"Here and there some circumstance, more or less important in his "awakening history, flashes like a meteor, or flits like an *ignis fatuus*, "across his mind. Of its positive occurrence he is morally sure; of "its *date* in relation to his own age at the time, onwards perhaps "from his third birthday, he knows nothing; except what he may "attain through inductive reasoning guided by the reports of others "—his own self-accredited reminiscence of the event being more fre- "quently than not, but the reflex of what may have been told him, "in after life, by witnesses or logopœists.[434] His cradle-hours ante- "date *his own* memory: their incidents he has gathered from domes- "tic traditions, or infers them by later observation of nursery-eco- "nomy with other babies. Ask him now—'When were you born?' "Our man *knows not.* He accepts his first birthday upon faith, 'the "evidence of things unseen;'[435] its epoch he receives upon hearsay. "The accounts he has heard of his infantile life, from nativity to his "second or third year, may be true enough; but, to himself, they are "anything rather than certainties.

"Now, 'the life of nations is long, and their traditions are liable "to alteration; but that which *memory* is to individual man, *history* "is to mankind in general.'[436] Viewing our Cosmic man, then, as "the symbol of the history of all humanity; and sweeping our tele- "scopes over the world's monumental and documentary chronicles "extant at this day; at what age of humanity's life do the petro- "glyphs of the oldest historical nation, the *Egyptians*, first present "themselves to the archæologist?—that is, was the earliest known "civilization of the Nile's denizens, as now attested by the most "ancient stone-records at Memphis, infantile, puerile, adolescent, or "adult? At which of the five stages of seven years, mystically "assumed by the old philosophers to be preliminaries of their 'great "climacteric,' do we encounter the first *Egyptian*, at the IIId Mem- "phite dynasty, taken with Lepsius about the 35th century B. C., "or some 5300 years backward from our present hour?

"You will find, after examination of the plates[437] before you, which

[434] MAURY, *Légendes Pieuses du Moyen-Âge*, Paris, 8vo., 1843; pp. 239, 252–3, 261–77.

[435] "A *conviction* of things unseen;" PAUL, *Epistle to the Hebrews*, xi. 1:—SHARPE'S *New Testament*, p. 406.

[436] DE BROTONNE, *Filiations et Migrations des Peuples.*

[437] LEPSIUS, *Denkmäler aus Ægypten*, Abth. I, B. 1–40; or thereabouts, which, with other tableaux, were suspended in front of the audience. Cf., also, some deductions from their study, developed in the same lecture, in *Types of Mankind*, pp. 412–4: and add now endless confirmations resulting through MARIETTE'S later discoveries (supra, p. 489–94).

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"are authentic copies of the *oldest* sculptures of man now known "upon earth, that neither infancy nor childhood is represented by "these most ancient of records, hardly even adolescence; but that the "first Egyptian beheld on these archaic hieroglyphs, leaps at a bound "from out of the night of unnumbered generations antecedent to his "day, a full-grown, if a young, *man* — endowed with a civilization "already so advanced 5300 years ago, that it requires an eye most "experienced in Nilotic art to detect differences of style between "these primordial sculptures of the IIId, IVth, and Vth dynasties, "and those of the more florid Diospolitan, or Augustan, period of "the XVIIth and XVIIIth dynasties, carved twenty centuries later, "and during Mosaic times in Egypt!"

Such a practised eye is the gift of our erudite collaborator M. Pulszky; and to his paper (*ante*, Chapter II), I beg leave to refer the reader for accurate details; closing, for myself, further definitions of *chronology* with the philosophical comment of A. W. von Schlegel:[438]

"Time has conveyed to us many kinds of chronology: it is the business of historical criticism to distinguish between them and to estimate their value. The astronomical chronology changes purely theoretic cycles into historical periods; the mythical makes its way supported by obscure genealogical tables; the hypothetic is an invention of either ancient or modern chronographers; and, lastly, the documentary rests upon the parallel uninterrupted demarcation of events, according to a settled reckoning of years. *The last alone deserves to be called 'chronology' in the strictest sense;* it begins, however, *much later* than is commonly supposed. Had this been duly considered, we might have dispensed with many an air-built system."

Egypt, oldest of historical lands, representing, therefore, but the "middle ages" of mankind's development upon earth, typified by our cosmic man, arrived at one-third of the "three-score and ten years," imagined by Hebrew writers to be the average of post-Mosaic[439] human longevity, it follows that, at the IIId dynasty, say 5300 years ago, the *Egyptians* at least, among, very likely, other oriental nations whose annals are lost, had long before passed through their periods of *adolescence*, *childhood*, and *infancy*. If we reflect that, since the fall of Grecian culture — itself built upon thousands of years of experience acquired by preceding Eastern nationalities already, during the palmy day of Hellas, in their superannuation or decrepitude — it has required some 2000 years of knowledge accumulated upon knowledge, of inventions heaped upon discoveries, for our civiliza-

[438] *Darstellung der Ægyptischen Mythologie* * * * *und Chronologie* (Prichard's) *Vorrede*, Bonn, 1837; pp. xliv–l.

[439] *Types of Mankind*, pp. 706–12.

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tion to reach the noon of this XIXth century; what longer extent of time must, I ask, be allowed for the Egyptians to have attained to that social development attested by the kingly pyramids, princely and aristocratic tombs of the IVth Memphite dynasty,[440] when,—unlike ourselves, who have improved the patrimony, by them, their contemporaries, and successors, bequeathed to us—they seem to have begun life without precedents: and, consequently, having had to grope through their anterior stages of *adolescence*, *childhood*, and *infancy*, before reaching the manhood of their first monumental recognition by us, must have found each civilizing acquirement the more arduous, exactly in the ratio as, retroceding in antiquity, their national life approximated to its nursery.

Yet the Egyptians dwelt upon purely alluvial land, bounded on either side by rocky deserts; and the river itself betokens, at every period of its flow into the Mediterranean, the ever-tranquil operation of the same laws that constitute its organism at the present day.

"Linked, through its perennial rise at the summer solstice, with the astronomical revolutions of the divine Orb of day at the acme of his ardent power, and most glorious effulgence,—marked, in the sky's cerulean blue, during the period of its increase, by the heliacal ascent of *Sirius*,—each monthly phenomenon of the deified river was consecrated by sempiternal correspondencies in the heavens; at the same time that, to the mind of the devout Egyptian, HAPIMOOU, the *numerous waters*, "Father of the Gods in Senem,"[441] appeared to be the most ancient of divinities, in his capacity of progenitor of the celestial *Amun*, himself "a great God, king of the Gods;" who, through a mythical association with *Nouf*, was the "Father of the Fathers of the Gods, period of periods of years." In fact, as the benign inundations of the river necessarily preceded, in point of date, the formation of the *alluvium*, the NILE seemed, to the first human wanderers on its sedgy banks, to be the physical *parent* of all things good and beneficent.

"Exalted, in the sacred papyrus *Book of the Dead*, to the heavenly abodes of Elysian beatitude, the *Celestial* NILE was supposed to regenerate, by lustration, the souls of the departed Egyptians, and to fertilize, by irrigation, the gardens of happiness tilled by their immortal spirits, in *Amenthi;* during the same time that, on earth, the *Terrestrial* NILE, by its depositions of alluvion created, while its waters inundated, a country so famed among Eastern Nations for its boundless fecundity, as to be compared (in Gen. xiii, 10,) to the

[440] It is taken for granted that LEPSIUS's *Denkmäler*, the only compendium of documents coetaneous with these primitive times, is known, at least, to the doubting critic.

[441] BIRCH, *Gallery of Antiquities*, part II, pp. 25, 10, 2; and Pl. XIII.

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"Garden of IeHOuaH, like the *land* of MITZRAIM:"—[442] that is, the *two Muss'r-s*, the *two Egypts*, upper and lower; or else, *Mitzrites*, the Egyptians; over which the androgynous HAPIMOOU crowned with the *Lotus* and *Papyrus* tiaras, in his duplex character of the *Southern* and the *Northern* NILES, annually spread out the prolific mould and the nourishing liquid, through which he was at once the *Creator* and the *Nurse* of Egypt.

"Thus, renowned from immemorial ages as the *gift of the* NILE, Egypt issues from the womb of primordial time armed cap-a-pie, like Minerva, with a civilization already perfected at the very earliest epoch of her history, *hieroglyphed* on the monuments of the IIId and IVth dynasties, prior to the 35th century before the Christian era. But, the *River* itself,—origin, vital principle, and motive cause of that wondrous civilization, has flowed on unceasingly at the foot of the Pyramids; its *Sources* a marvel, an enigma, an unfathomable mystery, to above *one-hundred-and-sixty* consecutive human generations, which have 'lived, moved, and had a being' since the limestone cliffs of Memphis were first quarried into tombs."[443]

Hence it is legitimately to be inferred, that those geological cataclysms and volcanic dislocations which, in Europe, filled caverns and ossuaries with bones of extinct genera mingled with those of man, and rolled silex-implements of human industry into French diluvial drift (*supra*), occurred at an age anterior to the settled quietness of Nilotic economy; because, a few decades of feet, caused by such convulsions, added to the historical level of Mediterranean waters, would have left abundant marks around the Memphite pyramids; whereas, nothing of the kind is to be seen there, or elsewhere, throughout *monumental* Egypt.[444]

It becomes, therefore, next to positive, as a corollary to the preceding chain of facts, that man's presence, also (judging from the rudeness of his silex-arts) then in his *childhood's* phase, must, in Europe, antedate even human infancy on the Nile's alluvium. What vistas of antiquity! Archæology, having herein sufficiently blown away the historical fogs and scud that, in nautical phrase, obstructed his vision, now cheerfully resigns a clean spyglass into the hands of the palæontologist.

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[442] NASH, "On the origin and derivation of the term *Copt*, and the *name* of Egypt;" BURKE'S *Ethnological Journal*, April, 1849; pp. 490–496:—*Types of Mankind*, pp. 493–5.

[443] GLIDDON, *Handbook to the Nile*, London, 8vo, Madden, 1849; pp. 34–5.

[444] See LEPSIUS, *Chronologie*, I, p. 24—how Herodotus and Plato say the Egyptians had never heard of the Hebrew *flood*.

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PART V.

"Adam, ante mortem ejus, convocavit omnes filios suos, qui erant in numero XV *milia virorum absque mulieribus."*

(Vita Ade et Eve, ANON., A. D. 1460).[445]

According to the Hebrew and the Samaritan Texts,[446] Adam was only 130 years old at the birth of Seth, his third son; according to the Septuagint Version, and to Josephus, his age was then 230.[447] In either case, the precise year is fixed by Archbishop Usher at B. C. 3874.[448] "And the days of Adam after he had begotten *Seth* were

[445] PHILOMNESTE, p. 37.

[446] REV. E. B. ELLIOTT, A. M., *Horæ Apocalypticæ*, London, 8vo, 1846; IV, p. 254:—HAYWOOD'S VON BOHLEN, *Introduction to Genesis*, II, pp. 97–9.

[447] *King James's version, Genesis*, V, 3, 4, 5.

[448] We have seen (supra, note 263) that Tubal-Cain is the *God-Vulcan;* and now in Seth it is easy to recognize, through Josephus (*Antiq. Jud.*, I, 2, &c.), and the dialectic mutation of S into T *aspirated*, the God TeT of the Egyptians, "author of letters" (BUNSEN, *Egypt's Place*, I, pp. 393–5), otherwise *Tautus*, or *Thoth;* not to be any longer confounded, as he has been by some, with SET or Typhon. See the argument of ALFRED MAURY ("Personage de la Mort," *Revue Archéologique*, 15 Aout, 1847, pp. 325–6). It had been formerly indicated (*Types of Mankind*, p. 562) that the mother of Seth, before she was named Eve (i. e. "KhiUaH, because she was the mother of all living," KhaIa; *Gen.* III, 20) had been called AiShaH, ISE, or *Isis*, who was famed as "the universal mother." It has been likewise shown previously (*Types of Mankind*, p. 544), why the patriarch ENOS is only the "God of the vulgar."

If etymologies are to be sanctioned in the explanation of primitive myths, the above four examples of *Vulcan*, *Thoth*, *Isis*, and *Enos*, now identified among the antediluvian progenitors of mankind, will be found more susceptible of historic and palæographical justification than the learned Mr. Osburn's unique discoveries (*Monumental History of Egypt*, London, 1854, I, pp. 239–40, 245, 339–44) of Adam, Noah, Ham, and Mizraim, in Egyptian hieroglyphics!

Not merely (p. 222) are "Scripture Patriarchs identified with Egyptian Deities," but, in his ingenious and pious book, the very "names of Goddesses recorded upon the monuments," are declared to be "those of the *wives* of the patriarchs;" although this excellent critic allows that "they are not preserved in the Bible."

To the same class, engendered by a similar monomania for "confirmations," in defiance of reason and historical truth, belongs the alleged discovery of the name and exploits of *Moses* in contemporaneous hieratic scrolls (REV. D. J. HEATH, M. A., *The Exodus Papyri*, London, 1855),—as if the English translation itself, utterly foreign to ancient or modern Egyptian ideas, did not sufficiently betray an Englishman's imposition during the present century! As for the REV. C. FORSTER'S last (*A Harmony of Primæval Alphabets*), wherein there is not a single hieroglyphic drawn with even childish correctness, nor a solitary phonetic value exact, they fall (together with his *Himyaritic*, *Sinaic*, and *Assyrian* interpretations, &c.) into a simpler category,—that of downright imposture. The self-deceptions, or perhaps "canards," of M. BARROIS (*Dactylogie et Language Primitif restituée d'après les Monuments*, Paris, 4to, 1850), have hoaxed even His Holiness the Pontiff (*Lecture littérale des Hiéroglyphes et des Cunéiformes*, Paris, 4to, 1853; p. 36): but being harmless pasqninados of a gentleman who pays liberally for the publication of his own books, as well as for any clever cheat (Pulszky's paper, *supra*, note 17, Chap. II) that "Chevaliers d'industrie" may foist upon his credulity, they really become sublime, viewed in comparison with some of the instances of fraud or hallucination above cited.

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eight hundred [LXX, 700] years; and he begat sons and daughters; —and all the days that Adam lived were nine hundred and thirty years; and he died:" leaving a rather large family, if we credit the biography, above cited, that his children numbered 15000 *men besides the women.* From what sources his second biographer gathered these statistics does not appear, any more than whence the so-called Mosaic compiler obtained the other Adamic particulars recorded in Genesis. The earlier biography, assuming Archbishop Usher's dates to be incontestable, must have been written (Deuter. XXXI, 9, 26,) about B. C. 1451; or some 1623 years after Adam's decease, — an event which, taking place 930 years after the Creation, ascertained to be B. C. 4004, occurred in B. C. 3074. The author of the "Life of Adam and Eve" lived, it is true, in A. D. 1460, or 4534 years after Adam's death; but any one who believes that anecdotes of the protopatriarch's long life could have been preserved, for incorporation into the Pentateuch, during 1623 years, cannot reasonably deny extension of the same possibility (1451+1460) for 2911 years longer.[449]

We need not be astonished either at the number of Adam and Eve's children during 800 years; because, while, on the one hand, Cardinal Wiseman[450] and the Rev. J. Pye Smith[451] teach how physical causes were in more vehement operation before the "Flood" than after; on the other, the multiplication of the Jews in Egypt, during the 430, or 400, or 215, years of their sojourn, when post-diluvial physical causes were precisely the same as at present, is equally formidable, and possesses equal claims upon credence. Jacob and his family, in number 70,[452] or 75, persons, settle in the land of Goshen; and their descendants issue forth "about 600,000 men on foot, without the children, and a mixed multitude"[453]—or GouM-AâRaB, Arab *levy* or horde. Commentators vary in their estimates of the number of souls, from 1,800,000 to 3,000,000; nor is the duration of the sojourn itself at all settled;[454] but the latter point is unimportant to my present argument. So is also the disproportionate area in Eastern lower

In making these assertions upon my own responsibility, there are two courses left open to the reader who cares about verification; 1st, to inquire of the hierologists in charge of the Paris, Berlin, London, or Turin Museums, whether they do not support these repudiations; or 2d, to defray the printing expenses of a thorough analysis of each work by myself, although I think "le jeu ne vaut pas la chandelle."

[449] I am merely following, with a little more minuteness, the orthodox example of DR. HALL, *Analytical Synopsis*, London ed. of PICKERING'S Races, 1851, p. xxxv.

[450] *Connection between Science and Revealed Religion.*

[451] *Relation between the Holy Scriptures and Geological Science*, 3d. ed., London, 12mo, 1843; pp. 185, 243, 301, 340.

[452] *Genesis*, XLVI, 27:—CAHEN, *La Bible, trad. nouv.* I, pp. 162–4, notes.

[453] *Exodus*, XII, 37, 38:—*Op. cit.*, II, p. 50, note 37.

[454] LEPSIUS, *Chron. der Ægypter*, I, pp. 315–17.

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Egypt where this vast population of bondsmen is supposed to have dwelt. Now, simultaneously with the Israelitish bondage, their Egyptian masters embraced at least 5,000,000 of population;[455] the latter were the oppressors; the former oppressed,—to such an abject and inconceivable degree, that they allowed even their first-born to be butchered without armed revolt. Nevertheless, they "multiplied exceedingly;" in consequence, as Father Kircher states,[456] of the fecundative properties of the Nile. A simple rule of three will test the relative ratio of increase.

If 75 Jews, in a given number of years, notwithstanding the most atrocious and attenuating despotism, multiply so as to leave Egypt in number (say the lowest figure) 1,800,000 souls; what, during the same period, in the same climate, and favored by their comfortable position as slaveholders, instead of being slaves, was the statistical augmentation of 5,000,000 of Egyptians?

There is no reason, therefore, to be appalled at the Rabbinical estimate of the number of Adam's children by the "universal mother." Whatever the numerical amount may have been, their antediluvian descendants were drowned in the Flood. Noah, Shem, Ham, and Japhet, with their wives, in all but eight individuals, being the only persons who landed—B. C. 2348—from the Ark upon Mount Ararat, to become the second progenitors of Mankind.

From these four couples, after a considerable lapse of time down to the middle of this XIXth century, have proceeded, according to

(POPULATION OF THE WORLD.)

Balbi	739	millions.
Malte-Brun	800	"
D'Halloy	750	"
Reynolds's Chart	852	"
Ravenstein's Chart	1,216	"

Inasmuch, however, as we are yet ignorant of the interior topography of at least one-third of the earth's surface, whilst we absolutely know little or nothing about myriads of human beings inhabiting such portions, it is probable that Dr. Gustaf Kombst's beautiful sheets[457] contain all attainable information, and to these I

[455] GLIDDON, *Otia Ægyptiaca*, p. 73.

[456] "Unde fœminœ non uno, duobus, aut tribus contentæ, sed sex, septem aut octo fœtus unico partu; quod et Hebrai in Exodum commentatores memorant, subinde effundebant. Nemini igetur mirum esse debet, filiorum Israel spatio ducentorum prope annorum, quo Ægyptum incolebant, immensam fuisse propagationem:"—*Œdipus Ægyptiacus*, Rome, fol., 1652; Tom. I, p. 52.

[457] "Ethnology, or the different nations and tribes of Man, traced according to Race, Language, Religion, and Form of Government"—revised and extended to 1854;—JOHNSTON, *Physical Atlas*, new ed., Edinburgh, 1855: Pl. 31, with six pages of description.

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beg leave to refer the reader for collateral statistics bearing upon our "Ethnographic Tableau."

The difficulties experienced for many years, both in the capacities of lecturer and author, to popularize some branches of archæological and ethnographic discoveries, had convinced me of the inadequacy of oral or written explanations compared with the rapid and convincing manner in which audiences, or readers, appreciate knowledge when accompanied by pictorial *illustrations*. It was my intention, therefore, upon undertaking, in 1854, to collect in Europe materials for my contribution to the present volume, to furnish an *Ethnological Map*, through which the differences and similarities, the divergencies and gradations, of the best-known races of men could be seized by the eye at a glance. Taught also by travel, comparison, and study, that systems and classifications, hitherto advanced under the sanction of eminent names, are open to the grave objection of being premature in the present stage of knowledge, most of them having been conceived by anticipation of the facts, my purpose was to avoid them all: and neither to take the word "Caucasian"[458] as comprehending numberless distinct types of man, stretched out geographically from Scandinavia to the Dekhan; nor the still more misapplicable term "Touranian,"[459] through which a modern linguistic school agglomerates, into one unaccountable mass, the 1001 different languages that happen to be neither *Semitic* nor *Indo-Germanic*. It is through the misuse of well-defined *specific* appellatives, and their transposition into generic senses, coupled with a sort of philological "thimble-rig," which strives to conceal individual ignorance,—when, in reality, this ignorance is universal—that the "public mind," uncritical and spell-bound by authority, as it necessarily must be, consoles itself with the notion that the "unity of the human species" is demonstrated, partly because Cuvier arbitrarily grouped all humanity into three grand classes, *Caucasian*, *Mongolian*, and *Ethiopian*;[460] and partly because the excellent Sanscrit scholar, Prof. Max-Müller, chooses to divide

[458] First used by Blumenbach, for convenience' sake, in cranioscopic subdivisions.

[459] Invented first and applied to ethnology by Prichard, I believe (*Researches*); it is time that this unlucky term should be brought back to its primitive historical meaning.

[460] CAUCASIAN, from *Kauk-Asos*, means only the "*mountain* of the *Asi*," or "*Asi* of the *mountain*;" referring to a special nation (As, Os, Ossetes) on the Caucasian range. MONGOL meant "brave, haughty," and was the peculiar honorific title of the golden horde of Ginghis-khân. ETHIOPIAN, from *Aithiops*, signified only a "sun-burnt face," and, in Hqmeric times, indicated merely all nations darker than Greeks; to the exclusion of negro races, at that period unknown to the fair-skinned Hellenes. To classify Egyptians, Dravidians, and Basques, as if they had ever been one family, instead of three distinct types, under the name "Caucasian," which in no respect suits any of them;—to include Lapps and Siamese within the designation "Mongolian," foreign and remote alike from both;—or to embrace under the appellation of "sun-burnt faces" (that is, only tanned or swarthy) African Negroes,

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languages in general "into three families, which have been called the *Semitic*, the *Arian*, and the *Turanian*."[461]

In order to explain the grounds of objection, one must digress for a moment upon these three terms. With the reservations of Renan,[462] and as the synonym of *Syro-Arabian* in its application to languages alone, the name "Semitic" is probably the best discoverable; but, when applied physiologically[463] to pure Nigritian families on the Mozambique no less than on the Guinea coasts, its adoption is delusive, because it extends the area of true Shemite amalgamations with African tribes far beyond legitimate induction; and suggests intermixture as the cause of really-insignificant facial resemblances between some races of negroes and the Arabians, without taking incompatibilities of color, form, hair, and endless dissimilar facts, into account. The law of *gradation* sufficiently explains these very questionable analogies,[464] upon which monogenists alone lay stress,—more frequently from sentiment than from evidence.

With the word "Arian," as employed by Prof. Max-Müller, it would ill-become me to dissent when selected by so great a master in Sanscritic lore. On the contrary, science is unanimous in its adoption, which his learned note[465] amply justifies; but it is with the wide extension given to "Turanian" that my quarrel lies. What is its origin? What its meaning? What its antiquity?

In the trilinguar inscriptions of the (A.D. 223–636) Sassanian dynasty,[466] the Persian monarchs assume in Greek the titles "Kings Αριανων και Ανariανων"—*i.e.*, of *Iranians and non-Iranians;* equivalent

Oceanic Papuas, and American Indians,—such nomenclature leads to nothing but mystification in the study of Man. I might likewise note the vagueness of *Negro*, *Papuan* and *Indian*, in ethnography.

461 *Languages of the Seat of War*, 1855, p. 23, 86–95:—and in BUNSEN's *Outlines*, 1854, I, pp. 238, 342–486. In the former work, our erudite linguist actually speaks of the "descendants of Tur (p. 87)"! In the latter, the biblico-Kur'anic harmonizings of Aboo 'l-Ghâzee about "Tur and Japheth" are accepted as historical! Compare *Types of Mankind*, p. 476.

462 *Langue Semitiques*, 1855, p. 2.

463 NORRIS, in *Prichard's Nat. Hist.*, 1855, pp. 420–7. SERRES, *Races nègres de l'Afrique Orientale, Comptes Rendus de l'Acad. des Sciences*, XXX, June, 1850, pp. 7–8, 13. I have seen some of M. de Froberville's casts, and must protest against M. Serres's Report that they are of a type "métis sémitiques:" nor, in view of my twenty-years' familiarity with Semitic races and their hybrids in Africa and Asia, — and fifteen years of observation of mulattoes in America — am I disposed to accept the "ipse dixit" of an Academician, who never had opportunity of seeing a dozen living specimens of "métis sémitiques" in all his life, against my own experience amongst thousands.

464 *Types of Mankind*, pp. 180, 186, 191, 209–10.

465 *Op. cit.*, pp. 27–9:—Compare BERGMANN, *Peuples Primitifs de la Race de Jafète*, Colmar, 8vo, 1853, pp. 10–20.

466 DE SACY, *Mémoire sur diverses Antiquités de la Perse*, et sur les *Médailles des Rois de la*

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to Persians and those who were not Persians. Nine centuries previously, in the cuneiform inscriptions of Persepolis,[467] Darius speaks of *Hariva*, Aria, — calling Persia, *Parsa;* but at neither period does the word "Tur" yet figure as the equivalent for *non*-Iranian: nor does it occur in earlier writings than Firdoozee's *Shah-Nameh*, "Book of Kings" composed in the 10th–11th century. Conceding that the immortal bard was versed in traditions that survived the wreck of Persic literature after the fall of Yezdegerd, it will hardly be claimed that "Tur" is an historical personage instead of a mythic personification of Scythic, *i. e.*, non-Persian, nations.[468] Oriental writers understand, by *Arians*, or "people of Irân," the inhabitants of lands enclosed by the Euphrates, Persian Gulf, Indus, and Gihon; and by *Tourânians*, barbarians, — "âdjem" or foreigners, like the *Goïm*, gentiles, of the Hebrews: so that *Airân* and *Aniràn*, or *Irân* and *Touràn*, signify only Persia contrasted with Turkestân. "Moullah Firoze, a learned Parsée of Bombay, explains the name of *Airan* to be derived from that of Believer; and that of *Anairan*, meaning Unbelievers."[469] The same senses may be gathered from the Zend-Avesta and the Boun-dehesch-Pehlvi,[470] wherein praises and victories are the appanage of *Eerieńé Veedjo*, the "Pure Irân;" curses and defeats that of Touràn. But these Parsee codes themselves are not of high antiquity.

If Firdoozee's grand epic be consulted, which purports to define the history of Persia from the tauro-kephalic Kaïumurts during 3600 years down to the Saracenic invasion, a poem itself also replete with alterations by copyists,[471] one perceives at once how the mythical Feridoon divided the empire among his three sons, — "To Sélim he gave Rûm and Kháwer; to Túr, Turân; and to Irij, Irân or Per-

dynasties des Sassanides, Paris, 4to, 1793; pp. 12, 31, 64, Pl. Inscrip. A. 3; and pp. 47, 55–60, 183. "Irân we Turân" does occur among Persian inscriptions at Tchehil-minar; but their date is Hedjra 826, A. D. 1423, — or long subsequently to Firdoozee.

[467] RAWLINSON, *Behistûn*, 1846, pp. i–xxxix.

[468] "*Iran* aut *Ilan* est Persia culturi zoroastrico addicta, orthodoxa; *Aniran* s. *Anilân* sunt provinciæ extraneæ, Sassanidarum imperio subjectæ, quæ quoque nomine *Turan*, i. e. Transoxana, a scriptoribus orientalibus appellantur, quarum incolæ ab ignicolis vel hæretici, vel irreligiosi habiti sunt:" (TYCHSEN, *De Cuneatis Inscriptionibus Persepolitanis lucubratio*, Rostock. 1798, p. 41, note).

[469] KER PORTER, *Travels in Georgia, Persia*, &c., London, 4to, 1821; II, p. 189: — compare RICHARDSON, *Dictionary, Persian, Arabic, and English*, London, 1806, I, p. 313, voce "Turân."

[470] ANQUETIL DU PERRON, *Zend-Avesta*, Paris, 4to, 1771; I. Part 1, pp. 16, 20, 26; II. préface, p. 348 seq.: — compare, for significations of "Airân," ST. MARTIN, *Mémoires historiques sur l'Arménie*, Paris, 1818; I. pp. 271–8.

[471] OUSELEY, *Travels, &c. in Persia*, London, 4to, 1819; I. Preface, p. viii., and note 5— "upon an average thirty different readings in every page."

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sia."[472] Hence it becomes obvious that the Persian poet, like the Chaldæan chorographer of Xth Genesis, in all his ethnic personifications, anthropomorphosized a country currently known as "Turàn" into an ideal king *Túr*. His translator observes that, ancient Scythia embraced the whole of Turàn, which appellative was but an early synonym for Turkestàn; in this, coinciding with Dubeux.[473] The same legend, slightly varied, reaches us through Mirkavend,[474] who died about Hedjra 903=A. D. 1498, viz: that *Túr* received Turkestàn as his patrimony from Feridoon, and then conspired with Seleem to murder their brother Iràdj, king of Iràn-Shehr: alluding doubtless, through an Oriental allegory of three men, to simultaneous attacks of Semitic and Scythic invaders upon the lion-standard of Persia.

Being Persian designations, "Iràn and Touràn" must receive solution through Arian etymologies;[475] and these are furnished in one paragraph by BERGMANN,[476] who as a favored pupil of Eugène Burnouf inspires every confidence.

"Thus, in the same manner that the Hindoos, particularly at the sacerdotal point of view of the Brahmans, called their country by the name of *Aryâ* (Honorable), or of *Aryâvartta* (Honorable country), in opposition to the heretical countries named *Tûryâ* (Persian *Utt-âryâ*,

[472] *The Shah-Nameh of Firdausí*, Transl. ATKINSON, London, 1832; pp. 50, 161–2, and p. 519, note:—cf. KLAPROTH "Histoire de l'Ancienne Perse, d'après Firdoussi," in which the age of the 2d (Kaïanian) dynasty is taken at B. C. 803, and the 1st (Pishdadian) as commencing 3342 years previously! *Tableaux*, pp. 3–4, 5–22.

[473] *Perse, Univ. Pittor.*, p. 225.

[474] MIRKHOND, *History of the Early Kings of Persia*, transl. SHEA, London, 8vo, 1832, pp. 138–86.

[475] I incline to think, notwithstanding, that the enigma of the well-known andro-leontine and andro-taurine sphinxes of Persepolis, and possibly also those of earlier Assyria, can be, in part, explained through *Iràn* and *Touràn*, as understood in three languages, Arian, Semitic, and Scythic; corresponding to the three forms of Achæmenian cuneatics, and to the triple medley of three types of man, Arabian, Persian, and Turkish, in the same countries at this day. Thus, in the first class of tongues, IR-àn, as *lion*-land "par excellence" (always the heraldic symbol of Persia, and blended into her monarch's names in the form of "sheer") contrasts with TOUR-àn, *Bull*-land; which, on the one side, is found in A-TUR, Ashour, Assyria,—and on the other applies to the ancient zoological conditions of Mawaranuhar, &c. where wild cattle were enormously abundant, whence *Tour* became the figurative emblem of barbarous *Tur*-kish races? But, with an indication that, in Scythic tongues, IR means also *man*, a curious inquiry, that could be justified only through many pages of elucidation, is submitted to the consideration of fellow-students of archæology.

[476] *Les Peuples Primitifs de la Race de Iaphète: Esquisse Ethnogénéalogique et historique;* Colmar, 8vo., 1853; p. 17:—Cf. MAX MÜLLER'S note in BUNSEN, *Three Linguistic Dissertations*, 1848, p. 296.

DE SAULCY, I find, read "Irân, de l'Iran" upon the inscriptions copied by the unfortunate Schulz, at Lake Van, 10 years ago (*Recherches sur l'écriture Cuneiforme Assyrienne*, Paris, 1848, p. 26): whilst a writer in the London *Literary Gazette* (1852, p. 610) said that he deciphered "Lordship of Irak and Iran" as well as "Lordship of Turan," on bricks in the British Museum. I have heard of no confirmation of the latter statement.

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Outside of Aria, or *Tu-âryâ*, Separated from Aria), and that they termed themselves *Aryâs* as opposed to *Mlêtchas* (Feebles, Barbarians, Heretics; cp. Heb. *Goyîm*, Peoples, Strangers, Arabic *el-aadjîm*, Wretches, Barbarous), so likewise the Persians [*Pahlavas*—Sanscrit *paraçus*, Gr. *pelekus*, hatchet; *Pahlavân* = hatchet-bearers] designated themselves *Aries* or *Artaes* (Gentiles, HERODOT. VII. 61): and, in imitation of the Zend names *Airyâo*, and of *Tu-îrya* or *An-airyao-danghâvo* (Country not-honorable), they also gave the name *Ariana* (Gr. *Ariane*), and later that of *Irân*, to all countries situate between the Tigris and the Indus, and between the Oxus and the Indian Ocean, because they were inhabited by orthodox Arians, worshippers of Ormuzd (Zend. *Ahuro mazdâo*, Great genius of the sun); whereas the misbelieving lands to the north and east, which were held to be the abode of *Ahriman* (Zend. *Agra-mainyus*), were called *Anîrân* (Non-Irân) or *Tûrân* (Ultra-Irân)."

The antiquity of the word *Touràn* being thus brought down to recent post-Christian times in all books wherein it occurs,—its signification being imbued with the theological xenolasia of Mazdæans and Brahmans, and naturally restricted in application to Scythic hordes immediately contiguous to *Aria*, or Ariana—modern ethnology has no more right to extend its area all over the world, than to classify the xanthous Gaul of Cæsar's time with the melanic Tamoulian of the present Dekhan, together with red-headed Highlanders and raven-locked Wahabees, under the other false term "Caucasian." Indeed, before agreeing with Prof. Max Müller (whose authority is unquestionably the highest for its use), in tolerating the corrupted myths of Sheêite Persia as historical; or talk of the "descendants of Túr" as if such metaphorical personage had really been father of those "Turanian tribes" which—since spread broadcast over the earth through this hypothesis—are now said to speak only "Turanian languages," I should feel warranted in accepting, as a legitimate basis for ethnic nomenclature, that exquisite travesty of a lost book of Diodorus; wherein the Greek text makes it evident, "How Britain, son of Jupiter and Paint, peopled the island [of England]; but some say that Briton was indigenous, and Paint (Διός και Χρώμης) his daughter:—how Briton received Roman as his guest," &c.;[477] or else, in considering *Hiawatha* a true portraiture of the thoughts and feelings of an American savage, instead of seeing in it merely the romantic ideal of a great Anglo-Saxon poet.

[477] PROF. HENRY MALDEN, "On pragmatized legends in History—Fragments from the VIIIth book of Diodorus, concerning Britain and her colonies"—*Trans. Philol. Soc.*, London, Nov. 1854; pp. 217–28. For pious forgeries in quoting and rendering Diodorus's text, compare MIOT's exposé in *Bibliothèque Historique*, Paris, 1834; pp. 189–90, 429.

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Tourân possesses no historical sense but that of *non-Persian* (*Aniranian*) ethnologically: none but that of Turkestân geographically. It were as reasonable to divide Asiatic and European humanity into Semitic, British (for *Arian*), and non-British (for everybody else not compressible into such Procrustean bed), as to classify all these multiform nations into Semitic, Arian (i. e. *Persian*) and Turanian; when this last adjective suits, strictly speaking, no human group of families but the Turkish.

Nevertheless, like Shakspeare's "word 'occupy,' which was an excellent good word before it was ill-sorted,"[478] "Touranian" may still do some effective service in specifying, whenever their ethnic relations become sufficiently cleared up,[479] the ancient inhabitants of countries now termed Turkestân: but, because "agglutination" happens to be their linguistic attribute, in common even with Hebrew (Semitic), and Sanscrit (Arian), and all human speech in its earlier formations: or because "in them the conjugation and the declension can still be taken to pieces," preserving all the while the radical syllable of the discourse,[480] — it does seem to me, that to classify, on such grounds alone, the transplanted and now prodigiously-intermixed descendants of *Hioung-nou*, *Sian-pi*, *San-miao* or *Miao-tse*, *Tata*, *Yue-tchi*, *Ting-lings*, *Geou-gen*, *Thiu-kiu*, and other indigenous races (every one according to physiological descriptions distinct from the rest) known in ancient Asia to the Chinese,[481] under such a misnomer as "Turanian;" to forget that primitive and indefinable Scythia has vomited forth upon Europe men of absolutely different stocks and unfixed derivations — Huns, white and nearly black, Khazars, Awars, Comans, Alains, &c. — or finally, to connect, through one omnific name, Samoyeds with Athapascans (if not also with Toltecs and Botocudos!), hybrid Osmanlees with pure Aïnos, Madjars with Telingas,[482]—these are aberrations from common sense

[478] *Henry* IV, 2d part, Act II, scene 4.

[479] For the real difficulties, slurred over by English ethnographers, see KLAPROTH and DESMOULINS.

[480] Incomparably well indicated by the Turkish verb "sev-mek;" MAX-MÜLLER, *op. cit.*, pp. 111–4.

[481] The most copious account of these nations, compiled from the best sources, is in JARDOT, *Révolutions des Peuples de l'Asie Moyenne*, Paris, 2 vols. 8vo, 1839. The *Arabs*, let me here mention, did not reach Chinese vicinities, through navigation, before the 9th century (MAURY, "Examen de la route que suivaient, au IXe siècle de notre ère, les Arabes et les Persans pour aller en Chine"—*Bulletin de la Soc. de Géographie*, Avril, 1846).

[482] Physical amalgamation with higher types, than any branch of the Turkish family was in the days of Alp Arslân, has transmuted his mongrel descendants residing around the Mediterranean, Archipelago, and Black Sea, to such an amazing extent that it is difficult to describe what a real Turk (and I have lived where thousands of all grades reside) should be. That the present *Caucasianized* Osmanlee is not the same animal now that his forefathers were only in the 12th century, is easily proved. BENJAMIN DE TUDELA —speaking

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into which Bunsen's endorsement of Prichard's "Touranian" has led an amazing number of worthy monogenists on this side of the water; but which Prof. Max-Müller himself never contemplated in adopting this unlucky term: for the very learned philologist excludes the *Chinese*,[483] and doubtless withholds other *An-Arian* types of mankind from his Turanian arrangement.

It appears to be the unavoidable fate of every human science to pass through a phase of empiricism. Each one, at some time or other, is regarded as a sort of universal panacea competent to heal all controversial sores. Such, at this moment, throughout Anglo-Saxondom, is the popular opinion concerning "Philology:" last refuge for alarmed protestant monogenism,—at the very time that Continental scholarship has stepped into a higher sphere of linguistic philosophy, which already recognizes the total inadequacy of *philology* (or other science) to solve the dilemma whether humanity originates in one human pair, or has emanated from a plurality of zoological centres. Philology, instead of being *ethnology*, is only one instrument, if even a most precious one, out of many other tools indispensable in ethnological researches. The powers of the science termed "la linguistique" are not infinite, even supposing that correct knowledge had as yet been obtained of even one-half the tongues spoken over the earth; or that it were within the capacity of one man to become sufficiently acquainted with the grammatical characteristics of the remainder. We do not even possess a complete catalogue of the names of all tongues![484] Yet, "What studious man is there," inquires Le Clerc, "whose imagination has not been caught straying from conjecture to conjecture, from century to century, in search of the *débris* of a forgotten tongue; of those relics of words that are but the fragments of the history of Nations?"[485] Eichhoff eloquently continues the idea—"The sciences of Philology and History ever march in concert, and the one lends its support to the other; because the life of Nations manifests itself in their language, the faithful representative of their vicissitudes. Where national chronology stops short, where the thread of tradition is broken, the antique genealogy of words that have survived the reign of empires

of Tartar flat-noses—narrates, "The king of Persia being enraged at the Turks, who have *two holes in the midst of their face instead of a nose*, for having plundered his kingdom, resolved to pursue them." (BASNAGE, *Hist. of the Jews*, p. 473).

[483] *Op. cit.*, pp. 86, 95–6. I refer to this admirable work in preference to "Phonology" in BUNSEN'S *Outlines*, because the latter has been disposed of by RENAN (supra, note 16).

[484] ADELUNG (*Catalogue*, St. Petersburg, 1820, p. 185) counted 3,064 languages: BALBI enumerated 860 languages and 5000 dialects. The greatest linguist on record, Cardinal Mezzofanti, was acquainted, it is said, with but 52.

[485] *Otia Ægyptiaca*, p. 12.

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comes in to shed light upon the very cradle of humanity, and to consecrate the memory of generations long since engulphed in the quicksands of time." Thus much is certainly within the competency of "philology;" and we may concede to it also the faculty, where the historic elements for comparison exist—as in the range of Indo-germanic, Semitic, and some few other well-studied groups of tongues—of ascertaining relationships of *intercourse* between widely-separate families of man; but not always, as it is fashionable now to claim, and which I will presently show to be absurd, of a *community* of origin between two given races physiologically and geographically distinct. Again, no tongue is permanent. More than 150 years ago, Richard Bentley, perhaps the greatest critic of his age,[486] exemplified this axiom while unmasking the Greek forgeries of Alexandrian sophists. "Every living language, like the perspiring bodies of living creatures, is in perpetual motion and alteration; some words go off, and become obsolete; others are taken in, and by degrees grow into common use; or the same word is inverted in a new sense and notion, which in tract of time makes as observable a change in the air and features of a language, as age makes in the lines and mien of a face. All are sensible of this in their own native tongues, where continual use makes a man a critic." But, at the same time that this is the law deduced from the historical evidences of written languages, its action is enormously accelerated among petty barbarous tribes, such as a few Asiatic, many African, several American, and still more frequently among the Malayan, and Oceanico-Australian races. Here, mere linguistic land-marks are as often completely effaced as re-established; while the typical characteristics of the race endure, and therefore can alone serve as bases for ethnic classification. Yet we read every day in some shape or other:

"The decision of the Academy (of St. Petersburg, 40 years ago) was, however, quite unreserved upon this point; for it maintains its conviction, after a long research, that *all languages are to be considered as dialects* (of one) *now lost.*"[487] This enunciation of an eminent Cardinal, although dating some 20 years back, is still quoted and re-quoted by thankful imbecility which, on any other point of doctrine, would shudder at Romanist authority. And it excites Homeric smiles among those who happen to know the estimation in which Egyptologists now hold M. de Goulianoff's *Archéologie égyptienne* and *Acrologie*, to see *his* report to the Russian Academy used as a dogmatical finality to further linguistic advancement! In England he

[486] *Dissertations upon the Epistles of Phalaris, Themistocles, Socrates, Euripides, and upon the Fables of Æsop* (1699); Dyce's ed., London, 8vo, 1836; II, p. 1.

[487] WISEMAN, *Connection*, &c., 2d ed., 8vo, London, 1842; pp. 68–9.

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has been succeeded by a school which discards the term "race" altogether; because its Oracle, after an amazing number of contradictory propositions, has latterly stated[488] how "he believes that all the varieties of man are referable to a single species," *as per catalogue*, Luke Burke judiciously comments, *of barbarian vocabularies.*

One recipe, for attaining expeditiously a conclusion so devoutly wished, is simple enough. It is the following:—1st, to start with king James's version of *Genesis*, Chapter IV, verse 25:—2d, to jump over 4730 years that an Archbishop says have elapsed from that day to this, and take the population descended from "Adam and Eve" to be now exactly 1,216,670,000:[489]—3d, to invent a sort of frame-work (say "escritoire") containing precisely 9 pigeon-holes:—4th, to label them *Monosyllabic*, *Turanian*, *Caucasian* (alias *Dioscurian*, said to be the same thing), *Persian*, *Indian*, *Oceanic*, *American*, *African*, and *European*:—5th, disregarding such trifles as history, anatomy, or physiological distinctions, to squeeze all humanity, "as per vocabulary," into these 9 compartments:—6th, to chant "te Deum" over the whole performance;—and lastly, 7th, to baptize as *infidels* those who disbelieve the "unity of the human species" to be proved by any such *hocus-pocus*, or arbitrary methods of establishing that of which Science, at the present day, owing to insufficiency of materials, humbly confesses herself to be ignorant; whilst she indignantly repudiates, as impertinent and mendacious, the suppression of all facts that are too three-cornered to be jammed into the 9 pigeon-holes aforesaid. Such, in sober sadness, is the effect produced upon the minds of unbiassed anthropologists, by this unscientific system. They cannot, for the life of them, as concerns real ethnology, where the theologer sees in each of these 9 pigeon-holes a wondrous "confirmation," perceive in the whole arrangement anything more than a reflex of the mind of their ingenious inventor. What true philological science has achieved, in the 6th year after the middle of our XIXth century, may be studied in M. Alfred Maury's Chapter I of this volume. Its results do not appear to favor monogenistic theories of human language.

It is with the express object of avoiding this, or any other unnatural *system*, that my "Ethnographic Tableau" has been prepared. Typographical exigencies compel an appearance, I must allow, of arbitrary classification: but no definitive bar to progress is intended by its arrangement; and I shall be proud to follow any better that impartial inquiries into Nature's laws may in the future elicit. Such as this

[488] *London Athenæum*, June 17, 1854.

[489] RAVENSTEIN, *Descriptive Notes*, and *Ethnographical Map of the World*, London, 1854; pp. 2–4.

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"Tableau" may be, it is the result of years of labor and comparison; and the ingenuous critic, in view of the mechanical difficulties of its execution, together with those of condensing so many different subjects into limited spaces, may peradventure look upon it favorably, under these circumstances.

We resume. It seems reconcilable with the theory,—now universally accepted by naturalists as demonstrated through botany, herpetology, entomology, zoology, &c., of the original distribution of animate creatures in centres, zones, or provinces of Creation—that each one of the various primitive forms of human speech arose within that geographical centre where the particular group of men inheriting its time-developed, or now-corrupted dialects, was created. One can furthermore perceive that the law of *gradation*—in physical characteristics from one group of mankind to another, when restored to their earliest historical sites—to some extent holds good upon surveying their languages: that is to say, abstraction made of known migrations and intermixtures among races, each grand type of humanity with its typical idioms of speech, can be carried back, more or less approximately, to the cradle of its traditionary origin. Thus, for instance, when, in America, we behold an Israelite, it requires no effort of imagination to trace his ethnic pedigree backwards across the Atlantic to Europe, and thence to Palestine; whence history, combined with the analogies of his race-character, and formerly special tongue, accompanies him to *Arpha-kasd*, Chaldæan Orfa,[490] in the neighborhood of which lay the birth-place of the Abrahamidæ. Beyond that ultimatum, positive science hazards no opinion. The theologer alone knows how or why Abraham's ancestry got among those hills instead of beginning amid the Himalayan, Cordilleran, Pyrenean, or other mountain ranges.

In this connection, however differing from many uncritical surmises of their learned author, I must do CHESNEY the justice to say, that his inquiries into the geographical site of the fabled "garden of delight,"—*Eden* of the Chaldees, *Hadenèche* of Zoroaster, and *Paradisè* of the Persians—have cleared up, beyond any other writer, the difficulties of identifying what, in king James's version,[491] is a river which, after "it was parted, (and) became into four heads."

The eminent chief of the "Euphratès Expedition" possessed, more than any preceding traveller over the same localities, the scientific requirements for their study; and his careful observations have restored to rational geography,—not indeed a mythos, which even

[490] *Types of Mankind*, pp. 536–7; and "Genealogical Tableau of Xth Genesis."
[491] *Genesis*, II, 10;—compare RENAN, *Op. cit.*, pp. 449–56.

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Origen[492] considered it "idiotic" to take in other than an allegorical sense, but a tract of country satisfying all the topographical *exigenda* of the brief poetic legend. "At the head of the fertile valleys of the Halys, Aras, Tigris, and Euphrates," as Chesney demonstrates through a beautiful map,[493] "we find, as might be expected, the highest mountains which were known for a great many centuries after the Flood; and in this lofty region are the sources of the four great streams above mentioned, which flow through Eden in directions tending towards the four cardinal points." Hence all mystery vanishes through the identification of a lovely province in Armenia, whence the adjacent sources of four rivers stream forth — viz.: the *Halys* (Phison) northwards to the Black Sea; the *Araxes* (Gihon) eastwards to the Caspian; the Tigris (*Hiddekel*, as our translators foolishly spell Ha-DiKLé, *the-Diglé; ed-Didjlé*, of the present Mesopotamians) flowing southwards, and the *Euphrates* (Phrât) westwards, until, bending towards each other, these two rivers unite and fall into the Persian Gulf through the Shut-el-ârab.

Being almost the only people whose geographical origin can now be determined within a few leagues of space, it may be well to strengthen this assertion from other quarters; after remarking that the starting-place of the Abrahamidæ (or *high-landers*), before they became Hebrews (*Yonderers*, subsequently to journeying westward *beyond* the Euphrates), falls naturally within the zoological province allotted by Agassiz[494] to the *Syro-Iranian* fauna of the *European* realm.

Mackay[495] has thrown together some of the best German authorities on the "mythical geography of Paradise," which substantiate these and my former remarks on Arpha-kasd.

"Among the places locally distinguished by the name of Eden was a hill district of northern Assyria or Media, called Eden in Thelasar (2 *Kings* xix, 12; *Ezek.* xxvii, 23 — GESEN. *Lex.* p. 60, 1117; WINER, *R. W. B.*, I, 380; II, 704). This Thelasar or Ellasar (*Gen.* xiv) is conterminous with Ptolemy's 'Arrapachitis (meaning either 'Chaldæan fortress,' EWALD, *Geschichte*, I, 333; or, 'Aryapakschata,' bordering upon Arya or Iran, Von BOHLEN, *Genesis*, 137), and with the plain of the ancient city Rages or Ragau (*Judith*, I, 6, 15), where the Assyrian monarch overcame the Median king Arphaxad. Rai, in several Asiatic tongues, was a name for Paradise (Von BOHLEN,

[492] *Peri-Archon*, lib. IV, c. 2; HUET, *Origeniana*, p. 167.

[493] *The Expedition for the survey of the Rivers Euphrates and Tigris* (1835–7); London, 1850, I, pp. 266–80; II, 1–60; and "Map of the countries situate between the rivers Nile and Indus."

[494] "Provinces of the Animal World" — *Types of Mankind*, pp. lxvii–iii, lxxviii, and map; also, pp. 112–15, 116–17.

[495] *Progress of the Intellect*, London, 8vo, 1850; I, pp. 39–44.

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Genesis, 27), and both Rai and Arphaxad, or Arrapachitis, occur in the personal genealogy of Heber (Reu is Ragau in the Septuagint). It has been ingeniously surmised that the genealogy from Shem to Abraham is in part significant of geographical localities, or successive stations occupied by the Hebrews in the progress of migration from some point in the north-east of Asia, from which tradition extended in a divergent circle as from the mythical Eerieya of the Zend-avesta (EWALD, *Geschichte Israel*, 316, 333, 336). In Hebrew tradition, as in that of the Indians and Persians, this region was immemorially sacred." No scholar at all acquainted with the biblical exegesis pretends any longer to recognize, in the misspelled name *Arphaxad* (copied by the English translators from the Greek version), an individual personage, but merely a geographical name ARP*ha*-KaSD. Thus Bunsen:[496] "*Arpakhshad* (the men of Arrapakhitis), after having gone in the person of Eber into Mesopotamia, pass in the person of Abraham into Palestine (Cauaan). * * * Now, as to Arpakshad or Arrapakhitis, we know from Ptolemy that their country was situated between Armenia and Assyria, on the southern slopes of the Gordyæan mountains, overhanging Assyria. This, therefore, we may consider as one starting-point. * * * Why should such a geographical origin not be expressed geographically, and why should it be misinterpreted?"

But, although it may be still impossible to fix the earliest cradles of other races with the same precision, and within an equally-small area, as the Jewish, history enables us to eliminate a great many others from consideration when we treat of the zoological province they have latterly occupied as aliens through transplantation. Thus, for example, every German in America is immediately restored to northern Europe; every negro to Africa; and if a Chinese, a Malay, or other type of man, be encountered anywhere outside of the geographical boundary of his race, he is instantly placed back in it by educated reason. Hence, through this natural, almost instinctive process, in which history, philology and physiology, must co-operate, each type of mankind can be restored to its original centre, if not perhaps strictly of creation, at least to that of its earliest historical occupancy; beyond which point human knowledge stands at fault: but none of these sciences, by any possibility, carries back a negro to the Caucasus, traces a Kelt to the Andes, refers a Jew to the Altaï, transfers a Pawnee to the Alps, a Yukagír to the mountains of the Moon, or an Australian to Mount Ararat, as the respective birth-

[496] *Christianity and Mankind, their beginning and prospects*, London, 8vo, 1854: III, p. 179, 180, 191. Cf. also GESENII *Thesaurus*, Lipsiæ, 1829; I, p. 153; voce ארף.

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places of these persons. Thaumaturgy alone claims to perform such miracles; ethnology ignores them altogether.

When each type of man is thus replaced in the natural province of his origin, we can, by taking a map of the earth, indicate in colors several centres, within and around each of which the group of humanity traced to it seems—the theological point of view being, in this discussion, left aside as obsolete—aboriginally to have clustered. Their number I do not pretend to guess at; there may be 3, 5, 7, or 8, though less, I think, than a dozen primitive centres; but, under such aspects, which limited space now precludes my justifying by argument or examples, it will probably be found (by those who for their own instruction may choose to test the problem as patiently as curiosity has led me to do for mine), that history, comparative physiology and philology, will harmonize completely with the zoological theory of several centres, and prove Prof. Agassiz's view to be irrefragable, viz: that mankind and certain mammalia were originally subject to the same laws of distribution.

To apply this doctrine to languages: A given number of such natural provinces being experimentally determined through induction, and then marked off by colored spots, each representing a typical group of homogeneous languages, upon a Mercator's chart;[497] if each one of these groups be taken separately as a point of departure in the eccentrical radiations of its own master-tongue, it will then be recognized, with the ingenious traveller Waldeck,[498] that *languages may be compared to circles; the primitive, or aboriginal, speech forming in each the centre.* The farther such tongue advances towards the circumference, the more it loses in originality; the *tangent*, that is to say, the point at which it encounters another language (radiating likewise from its own circle) is the place where it begins to undergo alterations, and commences the formation of a *mixed idiom.* By and by, a third language, also in process of spiral giration outwards upon its own axis, intersects either one of the two preceding or the point of union betwixt both. Under such circumstances, it will be seen (and might be represented on the Map in *shades* of color) that the "copia verborum" always, and the grammatical construction frequently, of

[497] Among attempts made at an "Ethnographical Map of the World," according to religious belief, occupations, &c., I would particularly commend RAVENSTEIN'S large sheet (Reynolds, Strand, London); but all these represent the distribution of mankind at the present day; whereas my conception refers to that of different human types at the earliest historical point of view (parallel with Egyptian pyramids 5000 years ago). Such a map has not been published yet; owing chiefly, I think, to a prevalent dogma, that, inasmuch as all humanity commenced upon Mount Ararat, any other system would be too profane for remunerative sales.

[498] *Voyage Pittor. et Archéol.* in Yucatan, Paris, folio, 1837; p. 24.

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three distinct languages, thereby become more or less interblended. Again, in course of time, some elements of a fourth, a fifth, or even of more, languages, originating in other centres, may be infiltrated into, or superimposed upon, this tripartite basis at certain points. Now, to analyze the component parts of this mass, and to carry back each organically-diverse tongue to its pristine centre, is the true office of antiquarian *philology;* and herein consists the most glorious application of this science, regarded as the handmaiden, not the mistress, of "Ethnology," which term ought to represent the judicious union of all sciences bearing upon the study of Man.

By way of exemplifying that such fusions have really taken place among languages, I would instance the Constantinopolitan Turkish, or present Osmanlee dialect. Originally Altaïc in geographical derivation, the Turkish type, barred by the Himalayan range from much influence over Hindostàn, and (save in the desperate alternative of flight or extermination undergone by what remains of Turkish among the hybrid *Yakuts*) shrinking from that Siberian cold which constitutes the mundane happiness of the Arctic-men (Samoyeds, Tchutchis, Eskimaux, &c.), radiated towards China on the east and Media on the west. Driven away from the flowery empire after prolonged onslaughts, the Turkish hordes—bringing with them, as their only trophies, a few Chinese words in their vocabulary, and some Chinese women in their harems—struggled for many ages in efforts to cross the Arian, or Persian, barrier, which arrested their march towards Europe. At such epochs was it that, in Persic history, the Turks were first called *Aniranians*, and latterly *Turanians;* during all these periods of encampment, never failing to add Mongolian, Scythic, and Arian, females to the Chinese that already garnished their tented seraglios. They absorbed abundant Persian vocables into their speech in the interim; and, through amalgamation with higher types (essentially *Caucasian*), their homely features began to acquire European proportion. Finally, as Osmanlees, we find them making Istambool their terrestrial paradise—the fairest of Arabia's, Circassia's, and Hellas's daughters becoming their "spolia opima" for four centuries; thereby polishing the Turkish form to such degree, that even the *Bostanjees* (gardeners), and *Cayikjees* (boatmen), of modern Byzantium now frequently rival Alcibiades in personal beauty. By way, however, of polygamic re-vindication, the politics of 1854–6 guarantee, at least for the next generation, further improvements at Galata and Scutari; only, this time, the manly cohorts of Britain, France, and Sardinia, by reversing the gender, have secured Ottoman melioration through the *female* line; and sculpture looks forward hopefully to a liberal supply from Turkey of *torsi* for Apollos.

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"Pari passu" with Turkish improvements in the *physique*, owing to amalgamation with higher races, has run the history of their language. Of yore in Asia as barbarous and limited in vocabulary as an Eskimo's, the Osmanlee speech has become in euphony most beautiful; and through its inherent capacity of expansion, aided by absorption of foreign roots, unbounded; because upon a given monosyllable, stolen no matter whence, the Turkish verb can *agglutinate* just what sense it pleases. Thus, supposing that recent contact with English hospitals should have impressed upon the Ottoman ear the syllable "sick," as relic of the valetudinarian's phrase "I am sick," the Turk can immediately, through the form *sick-mek*, by adding *ish*, obtain a reciprocal verb *sick-ish-mek*, "to be sick with one another;" or extend it even to *sick-ish-dir-il-mek*, "to be brought to be sick with one another;" and so on through thirty-six forms of conjugation;[499] in which the alien monosyllable "sick" will henceforward continue to play as great a part, while Turks endure, as if it had been native Turanian.

The Ottomans, therefore, exhibit in their present speech all the historical radiations from their Altaïc centre. At first exclusively Turanian, their language contracted some Sinic peculiarities; and then so many Arian (Persian) vocables and inflexions,—followed, after their conversion to Islamism, by such an abundance of Semitic (Arabic) roots—that the more a polite speaker introduces Persian and Arabic into his discourse, the higher is an Osmanlee diplomatist's estimation of such person's culture.[500] The modern Persian language presents a similar superposition of Turanian and Semitic forms upon an Arian tongue.

This principle of primitive centres of speech has been victoriously proved for Semitic languages by Renan, and for Malayan by Crawfurd; and it is even exemplified in our bastard English tongue, although its chief absorptions are Indo-Germanic, except in foreign substantives imported by commercial intercourse from other centres all over the world; as may be seen in De Vere's[501] capital book. Another method, not altogether new and somewhat defective in technical illustration, has just been proposed by Dr. David F. Weinland (before the American Association for the advancement of Sci-

[499] MAX MÜLLER, *op. cit.*. pp. 111–4; and HOLDERMANN'S *Grammaire Turque*, Constantinople, 1730, pp. 25–8.

[500] Recollection of Baron de Tott's work, read when I began a slight study of Turkish at Cairo, 1832–4, suggests reference to some very happy illustrations of this mixture of three tongues given by him; but I no longer possess, nor know where to find, his book for citation.

[501] *Outlines of Comparative Philology*, New York, 1853.

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ence,[502] "on the *names* of Animals with reference to Ethnology"), for tracking back the name of a given animal to its primitive zoological province, and hence deducing the nation that first occupied such centre. There is not the slightest doubt of its logical correctness, and I lament that space is now lacking to corroborate it by other examples; but my brief philological digression, save on one point, must be closed; and with the less regret because our able collaborator, M. Alfred Maury, has covered the philological ground of ethnology in Chapter I. of this volume.

The facts most obnoxious to the modern evangelical hypothesis of the *unity* of all languages, and which philological monogenism, with conspiring unanimity, either slurs over, or suppresses, lie in those numerous cases where the *type* of man, now found speaking a given language, bears no relation physically, or through its geographical origin, to the speech which, derived from a totally-distinct centre, it employed as its vernacular. Thus, as a ready instance, negroes transported to America from Africa (their own African idioms being wholly lost within two generations) have spoken Dutch in New York State, German in Pennsylvania, Swedish in Delaware, English from Maine to Louisiana; where, in a single city, New Orleans, they still converse in French, Spanish, or English, according to the domestic language of their proprietors. Continuing through the Antilles, among which, on different islands, French, Danish, Spanish, English dialects, and even Irish *with the brogue*,[503] are tortured by negro voices in the absence of any colloquial African tongue, we find them speaking Caribæan dialects along the Mosquito shores, Portuguese in Brazilian cities, and the *lingoa geral*,[504] or current Indian idioms of the country, throughout South America. In parallel manner, all along Barbary, Egypt, and Syria, imported negroes talk only in Arabic; while in Asia Minor, and in the Morea, I have met with many wholly ignorant of any language but Turkish in the former case, and Greek in the latter. Here, then, are familiar instances where human *faunæ* of the African realm would, by the mere philologer reasoning upon a few vocabularies, be assigned to the Indogermanic, the Semitic, or the Turanian groups of known Asiatic origin! Against such "petitiones principii," Desmoulins

[502] Reported in *New York Herald*, Aug. 26th, 1856; and perhaps as regards foreign proper names incorrectly.

[503] *Types of Mankind*, p. 723.

[504] Aug. de St. Hilaire, *Voyages dans les provinces de Rio de Janeiro et de Minas Geraes*, Paris, 8vo, 1830; I, pp. 424–6; II, 49–57:—Rugendas, *Voy. Pittor. dans le Brésil*, Paris, 1833; II, pp. 3, 27–34.

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was the first to raise his voice;[505] followed by Morton,[506] D'Avezac,[507] Pickering,[508] and others; but inasmuch as some ethnographers do not appear to have laid sufficient stress on the multitude of these contradictions inherent in the mere philological school, I will enumerate a few of the more striking instances, beginning with the oldest historical nation, that of Egypt.

The Fellàh of the present day has recovered the type of his primitive ancestry (*vide supra*, pl. I and II, and p. 109); yet his language has become Arabic instead of the ancient Hamitic, which, in the ratio of its antiquity, frees itself from Shemite influence.[509] The Jews, spread over the world, their primitive Aramaæn tongue and its successor the Hebrew being colloquially forgotten, adopt as their own the language of every race among whom they happen to sojourn; yet, owing to intermarriage exclusively among their own race, their true type has been preserved independently of such transplantations—I allude to that of more or less sallow complexion, black hair and eyes, aquiline nose, and high but receding forehead. Nevertheless, it would be an illusion to suppose that, even since the cessation of intermixture with Canaanites, Persians, and Greeks, down to their expulsion from Palestine after the fall of Jerusalem, the Israelites have been able to avoid mingling their blood with that of other races, to the extent which rabbinical superstition may claim or that Christians habitually concede. This is accounted for in the vicissitudes of their history during our middle ages; and is mainly owing to the proselyting furor of the Inquisition. On the one hand, forced conversions, in Spain and Portugal especially, often compelled Hebrews to dissimulate their repugnance to Gentile unions, as well as to disguise their secret adherence to Judaism; and this, sometimes, with such consummate skill that, in 1665, the Christian Patriarch of Jerusalem was discovered to have been a Jew all his life![510] On the other, polygamy was ever free to the Israelite,[511] until abandoned throughout Europe in submission to Catholic laws. The historical instances are so numerous of modern Jewish alliances with Gentiles, that it would require many pages to illus-

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[505] *Races Humaines*, pp. 365–50.

[506] "Inedited MSS.," *Types of Mankind*, pp. 311, 322–3:—GLIDDON, *Otia Ægyptiaca*, pp. 78–9.

[507] *Bulletin de la Soc. de Géographie*, XIV, 1840; p. 228.

[508] *Races*, pp. 277–8.

[509] BIRCH, *Crystal Palace Hand-book*, 1856; pp. 249–52.

[510] BASNAGE, *Hist. and Relig. of the Jews*, fol. London, 1708; p. 705. To Basnage, who may justly be termed the continuer of Josephus, I must refer the reader for proofs of all my assertions.

[511] *Op. cit.*, pp. 469–70.

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trate them fully; but their result is, that the votaries of Judaism may be divided into two broadly-marked and distinct types, viz. the one above mentioned, and another distinguished by lank and tall frame, clear blue eye, very white and freckled skin, and yellow-reddish hair.

Not merely in Barbary, Arabia, Bokhàra, Hindostàn and China, have numberless *converts* to Judaism mingled their blood with the pure Abrahamic stock; but, at several periods of temporary prosperity, and in various parts of Europe also, during the middle ages, Indo-germânic and Sclavonian families, adopting Mosaic institutes, freely intermixed with Israelites; and hence, through amalgamation, arise all noticeable divergencies from the well-known standard type. Poland seems to be the focus of this fusion of Jews with the German and Sarmatian races;[512] but some descendants of these multifarious unions, exiled from Spain, form at this day large classes in Algeria; and, whilst they are rare in Egypt and Syria, I can attest their frequency at Rhodes, Smyrna, and Constantinople. But, as a special instance of the false deductions that would be drawn from them (were philology not to be controlled by physiological criteria combined with history), while at Rhodes and Smyrna the outdoor language of these Israelites is Greek, and at Constantinople Turkish,—their domestic speech is Spanish, and their literature in the same tongue printed with Hebrew letters! The rationale is, they descend from the Jews driven out of Spain during the XVIth century, where they must have absorbed a goodly portion of Gothic, or perhaps Vandal, blood prior to their exode. Indeed, upon surveying the infinitude of diverse languages, habits, dresses, and contradictory institutions, contracted by the Jewish type in every country of the earth, and the consequent clashings of each national synagogue upon points of religious doctrine among *Khakhamìm* educated in different countries, should wealth ever enable Europeanized Jews to re-purchase Jerusalem, and to collect their brethren there from all regions of the earth, I much fear the result would be but a repetition of the "confusion of Babel." Apart from identity of physical conformation, subject to the exceptions above noticed, there could be but one test (and that latterly made doubtful)[513] through which such incongruous elements could fraternize; and like a Council at Ephesus, this Sanhedrim

[512] Bory de St. Vincent, *Anthropologie de l'Afrique Française*, 1845, pp. 12, 15, 17–8:—Rozet, *Voyage dans la Régence d'Alger*, Paris 4to, 1833; II, pp. 210–35. The learned author of *Genesis of the Earth and of Man* (1856, pp. 69, 123) supposes that the frequency of these fair-skinned yellow-haired Jews in the East "has not been mentioned by any writer." Here are two witnesses in the meanwhile.

[513] Bertherand (*Médecine et Hygiène des Arabes*, Paris, 1855; p. 313, note), on changes in Circumcision.

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would soon dissolve in uproar, affording to Gentiles a spectacle similar to, and edifying as, that of the Conventicle of Dordrecht:

"Dordrachi Synodus nodus.
Chorus integer æger.
Conventus ventus,
Sessio stramen, Amen."

Very singular is it, nevertheless, that the people whose xenolasia, or hatred to foreigners, has been so instinctive since their post-Babylonian history, should have become in language the most cosmopolitan. Thus Josephus says, that they who learned many tongues were not esteemed in Judea; and Origen testifies that, in his time, the Jews did not trouble themselves about Grecians or their tenets. In the *Mishna*, Jewish children are forbidden to acquire Greek.[514] "The *postille*, annexed to the text of the Misnah, contains a malediction, pronounced against him who keeps a hog, or *teaches his son Greek;* as if it was equally impure to feed an unclean beast, and to give men a good education:" but exile forced the Rabbis to relax such inhibitions, during the 11th century, after R. Solomon of Barcelona; and now it would be difficult to define Israelitish characteristics more aptly than by "Judaismus polyglottus," did not the original Abrahamic type,—owing to a recognized law in breeding, that the many, effacing by degrees the few, invariably return to their normal *physique*—vindicate its right to be called the purest, *cæteris paribus*, of all nations upon earth.

Again, among Shemitish examples, there are multitudes of pure-blooded Arabs in Affghanistàn and Bokhàra, few of whom except their Moolahs preserve their Arabian dialect;[515] but have adopted the alien idioms of the country, whilst preserving their Arabic physique during about 1000 years. In Asia, these metamorphoses of tongue coupled with preservation of type are innumerable. There are *white* Kalmuks (Telenggout) in Siberia, whose physiognomy is wholly Mongol: but speaking Turkish, they are evidently a Mongolian family which, losing its own tongue, has adopted a Turkish dialect.[516] If one were to attempt a specification of the *hybrid* grada-

[514] BASNAGE, pp. 405, 608–9. A very singular question, bearing upon cranioscopy, is asked in the old *Talmud* (*Schabbas*), viz.: "Quare sunt capita Babyloniorum rotunda [MeGeLGiLOT*i*]?"—JOH. BUXTORFI P., *Lexicon Chaldaicum Talm. et Rabbin.*, 1629, p. 1435. The fact is (*supra*, Chap. II, figs. 39, 40), they *are* round.

[515] KHANIKOFF, *Bokhara, its Amir and People*, transl. De Bode, London, 8vo., 1845; pp. 67–80:—MALCOLM, *History of Persia*, London, 4to., 1815; p. 277:—MORIER, *Second Journey through Persia*, London, 4to., 1818; i. pp. 47–8. On the absurdity of Jews being the ancestors of the Tadjiks of Bokhara, or the Pushtaneh of Cabul, read KENNEDY, *Question of the supposed Lost Tribes of Israel*, London, 8vo, 1855, p. 51.

[516] KLAPROTH, *Magazin Asiatique*, No. I.:—See all kinds of similar transpositions between race and tongue in DESMOULINS, *passim*.

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tions in blood and languages that exist around the circumferences of Arctic, Ouralian, Altaïc, Thibetan, Daourian, and other stocks, wherein one race has exchanged its language, whilst more or less perpetuating its own race-character, a volume of citations would barely cover the contradictory instances; but the exactitude of a competent authority's,[517] Count John Potocki's, experience would be thoroughly confirmed:—"but I also encounter [at Astrakan] new difficulties. I behold men with flat faces, who seem to belong to the same people; but these men speak different languages. On the other hand, men with dissimilar features express themselves in the same idiom; and all pretend to be the veritable Tatars of Tchinghiz-khân!" The same phenomena, upon contrasting ancient and modern times especially, meet the eye everywhere in Europe. "For example," says Potocki,[518] whilst laying down an admirable series of rules for unravelling these complex meshes wherein the tongue contradicts the race, or *vice versâ*, "the Tatars of Lithuania have preserved their little eyes and their religion; but they have lost their language, and no longer speak anything but Polish: at the same time that Latham,[519] in whose excellent compilation other instances occur, establishes that—"*a.* There is a considerable amount of Ugrian blood amongst certain populations whose speech is Sclavonic. *b.* There is a considerable amount of Sclavonic blood among certain populations whose speech is German." Haartman[520] has shown that the Carelians, hitherto classed as Finns, belonged to a totally distinct family, whose lost language "has been superseded by the Finnic:" Niebuhr[521] proves that the Epirots "changed their language, without conquest or colonization, into Greek:" Maury indicates the diversities of races and tongues now becoming absorbed into French, whilst still preserving distinctive marks of separate race-characters:[522] Keith Johnston's exquisite "Ethnographic Map of Great Britain and Ireland," with its letter-press,[523] exhibits how pre-Keltic, Celtic, and Teutonic differences of blood and languages are gradually merging themselves into a common vernacular, the English; although the original distinctions of race still survive countless inter-

[517] *Voyage dans les Steps de l'Astrakan et du Caucase. Histoire Primitif des Peuples qui ont habité anciennement ces Contrées: Nouveau Périple du Pont Euxin*—with notes by Klaproth; Paris, 8vo., 1829; ii. p. 52:—See RECKBERG (*Les Peuples de la Russie*, Paris, fol.; *Discours préliminaire*, pp. 3, 6–13) for the various families occupying the Russian Empire = ninety-nine nations.

[518] *Op. cit.*, i. p.12.

[519] *Native Races of the Russian Empire*, London, 12mo., 1854; p. 23.

[520] *Transactions of the R. Soc. of Stockholm*, 1847.
[521] *History of Rome*, i. p. 37. } "Morton's inedited MSS."

[522] *Ethnologie Anciénne de la France*, Paris, 18mo., 1853, pp. 22–32.

[523] *Physical Atlas*, fol. 1855, Pl. 33.

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marriages: and Pickering,[524] struck with linguistic anomalies beheld in the *eleven races* discerned by him in his voyage round the world, at the same time that he furnishes other illustrations, judiciously observes — "Although languages indicate national affiliation, their actual distribution is, to a certain extent, independent of physical race. Confusion has sometimes arisen, from not giving due attention to this circumstance; and indeed, the extension, or the imparting of languages, is a subject which has received very little attention. Writers sometimes reason as if nations went about in masses, the strong overcoming the weak, and imposing at once their customs, religion, and languages on the vanquished;" when the contrary has been more frequently exemplified: and he shows that in the cases of Africans transplanted involuntarily to the United States, Hayti, and St. Vincent, "we have three examples, where one physical race of men has succeeded to the languages and institutions of another."

In general, the fusion between languages originating from different centres, is parallel with amalgamations between races of distinct stocks brought together from widely separated countries. Among familiar examples, wherein English thus struggles for mastery (apart from Malta against Italian-Arabic, and in the Ionian Islands against Venitianized Greek), may be mentioned *Pitcairn's* Islanders (by this time probably moved on to Van Diemen's Land), whither the "Bounty's" mutineers, carrying off Polynesian females, formed a race of half-castes: the small, if prolific, family at *Tristan d'Acunha*, compounded between nigritian women from St. Helena and British marines; — and the amalgamizing tendency of colonists at New Zealand,[525] which introduces a third element of hybridity amid a people that, at the time of their earliest relations with Europeans, were already (strange to say) composed of two different stocks; the one fair, and unquestionably Polynesian; the other black, either Harfoorian or Papuan; whose union had produced various shades of mulattoes, — to the astonishment of Crozet,[526] when he saw "trois espèces d'hommes, des blancs, des noirs, et des basanés ou jauues," at Cook's *Port of Islands*. Some day, perhaps, a philologer, who disregards history and race-character, will establish perfect unity among Pitcairn, Tristan d'Acunha, and New Zealand, humanity, on the ground of their natives speaking English!

Thus, one might travel onward, by the aid of literary sources, from

[524] *United States Explor. Exped.*, 1848, fol., IX, pp. 277–9.

[525] ANGAS, *New Zealand illustrated*, London, fol., 1846.

[526] *Nouveau Voyage à la Mer du Sud*, with Capt. Marion in the "Mascarin" and "Castries," Paris, 8vo, 1783; pp. 51–2, 127–8:—confirmed by CHAMISSO, in KOTZEBUE'S *Voy. of Discovery into the South Sea*, &c.; tranl. Lloyd, London, 8vo, 1821; III, p. 290. The Tonga Islanders afford a parallel illustration.

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country to country, all over the world (as indeed my notes can show that I have done) to prove that there is scarcely any spot remaining now where amalgamation between different races has not taken place; and, consequently, where *philology*, if applied without knowledge of these physical facts, must often lead to egregious error. I must content myself, however, with succinct references, under each of the 54 heads of our "Ethnographic Tableau," to authorities, through which an inquirer can satisfy himself upon the truth of this assertion. The converse of our proposition will, moreover, substantiate its correctness, viz.: that, wherever there has been no amalgamation of races, a type will perpetuate its language and its blood, irrespectively of climatic influences. Many islands and peninsulas would furnish illustrations in different regions of the earth, but none more fortified with such historical guarantees, and for so long a period as thirty generations, as hyperborean Iceland.

Sixty-five years, that is about A. D. 795, before its re-discovery by the Norwegian Floke in 861, Iceland had been occasionally visited by Irish anchorites from the Feroë Isles;[527] the latter being known to the learned monks of Ireland prior to 725. Colonization of the former island by Scandinavians commenced as early as 862;[528] and thither flocked the Northmen in such numbers from Halogaland, Drontheim, Nordenfield, Nommedalen, &c., together with some cognate families from Sweden, Scotland, the Hebrides, and Ireland, that, by 920, the country was already populous; and the first historical census of 1100 showed about "3860 principal heads of families." Unspeakable disasters from plagues, volcanoes, famines, and diminutions of temperature, have been their lot; especially when cut off from their last Greenland offshoots[529] by the ice, during 1406–8. During nearly 1000 years pure-blooded Northmen have withstood, remote from the rest of the world, Iceland's inhospitable climate, and, free from amalgamation with any other race, as a consequence, still speak the old *Norse* as purely as Ingolfr, the first actual settler in 862.[530] Nevertheless, imbued, since their forcible conversion, 981–1000, with biblical traditions, even these Icelanders have hitched their genealogies on to the Semitic chart called Xth Genesis! Jon Arason, bishop

[527] LETRONNE, *Recherches géographiques et critiques sur le Livre* "de Mensura orbis Terræ," *composé en Irelande, au commencement du 9me siècle par Dicuil;* Paris, 1814; pp. 131–46.

[528] XAVIER MARMIER, "Histoire de l'Islande," *Voyage de la Commission Scientifique du Nord,* Corvette "Recherche," *en Islande et au Groenland* (1835–6); Paris, 8vo, 1840; pp. 12–191.

[529] SCORESBY, *Journal of Northern Whale Fishery and West Greenland,* Edinburgh, 8vo, 1823; and GAIMARD, "*Histoire du Voyage de la Recherche,*" Paris, 1838; I, p. 3.

[530] MARMIER, "Littérature Islandaise," *op. cit.*, p. 7:—BUNSEN, *Discourse on Ethnology, British Assoc. for the Adv. of Science,* in "Three linguistic Dissertations," London, 1848; pp. 278–9.

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of Iceland towards the end of the 15th century, although the son of a peasant, "caused his genealogy to mount up in a straight line to the first kings of Denmark, and even to Adam. * * * It comes down from Adam to Noah, from Noah to Japhet, to Jafre, Jothum, Cyprus, Crete, Saturn, Jupiter, to Darius. At the 23d degree, we find Priam; at the 25th, Throar, whom we call Thor, says the chronicler; at the 42d, Voden or Odin; then come the first kings of Denmark; and, at the 85th, appears the name of this bishop!"[531] In such a desolate country, amid wintry darkness extending to 21 hours per diem, time must have been wearisome. Sympathy bids us respect the fables of a school-loving people, who, "simplex munditiis," composed the *Edda*, besides a multitude of *Sagas*,—generally about as historical as good Bishop Arason's pedigree.[532]

Icelanders, however, may challenge the rest of mankind to exhibit another nation upon which a thousand years have entailed neither change of race nor alteration of speech. Their high-caste Scandinavian features, abundantly figured in portraits by Gaimard,[533] equally attest the purity of their blood and *permanence of type*, despite their long position on the Arctic circle,—where, according to alleged climatic action upon the human frame, and Bishop Arason's genealogical tables aforesaid, they ought to have beeome either *Lapps* or *Eskimo!*

Let it not be said, in behalf of the monogenistic view, that, in proportion as one recedes into antiquity, fewer languages and fewer races are encountered. At the age of the writer of Xth Genesis, within the very limited superficies embraced within his geography,[534] the 79 *nations*, *tribes*, *cities*, and *countries*, enumerated by him, were already divided "after their tongues." The existence of no others was known to him, else more would have been recorded. Even in a fractional part of the world, just at the edge of the above map's circumference, Herodotus tells us that, in the twelve cities of Ionia alone, four distinct tongues were spoken; and how Grecian traders, between the Volga and the Uralian range, carried with them no less than seven interpreters; whilst Polybius narrates that Carthaginian mercenaries in Spain, during a mutiny, vociferated their demands in ten different languages. Yet, to all these chroniclers, three fourths

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[531] MARMIER, "Histoire," p. 323:—Compare some of the Arab genealogies collected by Chesney;—*Op. cit.*, I, appendices, Tables 1–4.

[532] ELLESMERE, *Guide to Northern Archæology, by the R. Soc. of Northern Antiquaries of Copenhagen*, Loudon, 8vo, 1848, pp. 83–91.

[533] MARMIER, *Op. cit.* From it I have selected the simple fisherman, Petur Olafsen; No. 14 of our Tableau: but the work contains larger likenesses of men more illustrious, perhaps, though not more typical.

[534] *Types of Mankind*, pp. 549–50, Ethnol. Tableau, and Map.

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of the earth's surface were utterly unknown! A glance over the annals, or monuments, of these three fourths, will prove that the major portion of their human inhabitants, like other genera of their mammalia, must have existed contemporaneously. Our last volume, combined with the great enhancement of authentic examples contributed by our erudite coadjutor Mr. PULSZKY to this, ought to satisfy unbiassed doubters that it is not through the mere love of opposition that polygenists claim a right to demand some things more reasonable than dogmatic denial, before "the unity of the human *species*" can be accepted by science.

There occurs yet another contingency that, in various countries, has had a certain influence in disturbing the natural order of some tongues, and which philologists should not altogether ignore. It is where, as in the French "argots," in the English "slangs," or in the Arabic dialect of the *Awâlem*, a new idiom is invented. Of such, Oriental history presents us with many curious examples, and European even to the forgery of a pretended language. Thus, in China, as mentioned in our former work, the Mandchou Tartar dynasty coined five thousand new words which they forced upon their subjects, as Champollion-Figeac says, "d'emblée et par ordonnance." Again, at Owyhee, about 1800, His Majesty Tamaahmaah invented a new language, in commemoration of the birth of a son; but, according to Kotzebue, this prince happening to die, the people resumed their old one. There are many English colonies where, at this day, judicial proceedings in court, as at Malta and Corfu, can only be carried on in English; and the strongest bulwark of the Ottoman rule,—now extinguishing itself in the exact ratio that, through amalgamation, the pure Turanian blood ebbs away—was that uncompromising instinct which forbade Turks to respect any language but the Turkish. Now, I do not mean to aver that, in any of these cases, counterfeits cannot be detected; or that true philology is unable to discover the genuine stock from which such invention may have issued, so to say, by the ring of the metal. I am merely calling attention to very common circumstances through which the tongue spoken frequently contradicts the type of its speaker.

But, to close this argument: It may be advanced by transcendental *philology*, that all these distinct tongues are comprehended within its laws; that is to say, whether a transplanted negro in America speaks Cherokee, a Jew expatriated to Singapore adopts Malay, or a Chinese brought up at Berlin converses in German, that, nevertheless, these languages — American, Malayan, and Teutonic — that each individual has acquired; together with those idioms — African, Hebrew, and Sinic — which every individual has forgotten, are all

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comprised within the classification "Arian, Semitic, and Turanian," as understood by the Bunsen-school; and furthermore that, like unity in trinity, these three classes are reducible into one primeval speech.

Denying the competency of any man living, in the actual state of science, to be considered a "philologist" if he enunciate such a doctrine, I must again refer to M. MAURY'S Chapter I. in the present volume for proofs that the truth lies in the contrary statement.

Although the subject of "chronology" may be here a little out of place, still, in support of preceding remarks [*supra*, pp. 466, 469], the reader will not object to my intercalating the substance of Chevalier Bunsen's latest publication (*Ægyptens Stelle*, V^tes^ Buches, 5te Abtheilung, pp. 342–59), in the only space of this volume where such new and interesting matter can be introduced. I am not aware that the work itself has yet reached this country, but owe what follows to the considerate kindness of our collaborator Mr. PULSZKY, through a private letter received here whilst finally correcting "revises."

CHEVALIER BUNSEN'S CHRONOLOGY.

	Years before Christ.
ORIGIN OF MANKIND.	20,000
Flood in Northern Asia — Emigration of the Arians from the valley of the Oxus and Jaxartes, and of the Shemites from the valley of the Tigris and Euphrates — between ..... 10,000 and	11,000
Egyptian *nomes* (provinces) under republican form	10,000
But, the use of hieroglyphical writing already probable at about	12,000
End of the republican phase in Egypt	9,086
BYTIS the Theban, 1st Priest-king	9,085
End of the Priest-kings	7,231
[About this time NIMROD, and a *Turanian* empire in Mesopotamia, &c.]	
Elective kings in Egypt, from ..... 7,230 to	5,414
Hereditary Kings in Upper and Lower Egypt,—a double empire from 5,413 to	3,624
MENES, king of united Egypt ..... B.C.	3623
Great Chaldæan empire begins in Babylonia ..... "	3784
ZOROASTER, between 3500 and ..... "	3000
Foundation of Babylon ..... "	3250
Tyrian chronology begins ..... "	2760
Exodus of the Israelites ..... "	1320
SEMIRAMIS ..... 1273 to "	1200
SOLOMON'S *era* ..... "	1017
&c. &c.	

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CONCLUSIONS.

PROTESTANT.

Acts xvii, 26.	Textus *revisus*, A. D. 1857.
"ἐποίησέν τε ἐξ ἑνὸς πᾶν ἔθνος ἀνθρώπων κατοικεῖν ἐπὶ παντὸς προσώπου τῆς γῆς."	"fecitque ex uno omne (homine) genus hominum inhabitare supra universam faciem terræ."[535]

CATHOLIC.

"ἐποίησέν τε ἐξ ἑνὸς πᾶν γένος ἀνθρώπων κατοικεῖν ἐπὶ παντὸς προσώπου τῆς γῆς."	"Fecitque ex uno omne genus hominum inhabitare supra universam faciem terræ."[536]

"Εποιησε τε εξ ενος παν εθνος ανθρωπων."[537]

TEXTUS RECEPTUS—GREEK.[538]

"ἐποίσέ τε ἐξ ἑνὸς αἵματος |
πᾶν ἔθνος ἀνθρώπων κατοικεῖν ἐπὶ
πᾶν τὸ πρόσωπον | τῆς γῆς."

TEXTUS RECEPTUS—LATIN.[539]

"fecitque ex uno omne genus hominum
inhabitare supra universam faciem terræ."

French Catholic.[540]	*French Protestant.*[541]
"Il a fait naître d'un seul toute la race des hommes, *et il leur a donné* pour demeure toute l'étendue de la terre."	"Et il a fait d'un seul sang tout le genre humain pour habiter sur toute l'étendue de la terre."

English Catholic.

"And hath made of one, all mankind,
to dwell upon the whole face of the earth."[542]

Variantes lectiones.

1.[543]	2.[544]	3.[545]
"And [*he*] hath made of one Blood [*of Adam*] all Nations of Men to dwell on all the Face of the Earth."	"and has made every Nation of Men of the same Blood," &c.	"and hath made of one blood all nations of men to dwell on all the face of the earth."

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English Versions of Acts xvii, 26.[546]

Wyclif, 1380.	Tyndale, 1534.	Cranmer, 1539.	*Geneva*, 1557.	*Rheims*, 1582.	"Authorized," 1611.
"and made of oon alle kynde of men to enhabite on al the face of the erthe."	"and hath made of one blond all nacions of men, for to dwell on all the face of the erthe."	"and hath made of one bloud all nacions of men, for to dwell on all the face of the earth."	"and hath made of one bloud all mankynde, for to dwel on all the face of the earth."	"and he hath made of one al mankinde to inhabite upon the whole face of the earth."	"and hath made of one blood all nations of men, for to dwell on all the face of the earth."
(*From the Latin Vulgate.*)	(*From the Greek printed Text.*)	(*From the Greek printed Text.*)	(*From the Greek printed Text.*)	(*From the Latin Vulgate.*)	(*From the Greek printed Text.*)

535 *Novum Testament. Græce et Latine*—Carolus Lachmannus recensuit. Philippos Botmannus Ph. F. Græcæ Lectionis Auctoritatis apposuit. Berolini, 1850, tomus alter, p. 126. [Readings:—*ἑνὸς alone* in Cod. Alex. and Vat. Cantab. Laud., and Cantab. Laud., Elzivir ed. 1624, and Irenæus, add the word "blood."]

536 Η ΚΑΙΝΗ ΔΙΑΘΗΚΗ. *Novum Testamentum Græce et Latine. In Antiquis Testibus Textum Versionis Vulgatæ Latinæ indagavit Lectionesque variantes Stephani et Griesbacchii notavit V. S. Venerabili Jager in consilium adhibito* Constantinus Tischendorf (Editio DD. Affre Archiepiscopo Parisiensi dicata):—Paris, 1842, p. 225. [Readings:—"*St.* [Stephen] *Gb.* [Greisbach], *ἑνὸς αἵματος πᾶν ἔθνος* et *ἐπὶ πᾶν πρόσωπον.*"]

537 Harwood's *New Testament* (without points), London, 12mo, 1776, I, p. 342.

538 Scholz, *Novum Testamentum Græcæ*, Lipsiæ, 1836, II, p. 67.

539 *Bibliorum Sacrorum Vulgatæ Versionis editio*, Paris, 4to (Didot), 1785, p. 405.

540 *La Sainte Bible*, traduite sur la Vulgate, par Le Maistre de Sacy, Paris ed., 1849, Nouv. Test. p. 148.

541 *La Sainte Bible*,—revue sur les originaux et retouché dans le langage, par David Martin, Ministre du Saint-Évangile, à Utrecht; Paris (Didot), 1839—Nouv. Test., p. 178.

542 "*The Holy Bible*, translated from the Latin Vulgate"—Old Testament, Doway, 1609; New Testament, Rheims, 1582 (approved by the most reverend Doctor Troy, R. C. A. D.), —Dublin, 4to, 1816, p. 193.

543 Whitby, *Paraphrase and Commentary on the New Testament*, London, 4to, 6th ed., 1744; I, p. 694.

544 Purver, *New and Literal Translation*, &c., with notes, London, 8vo, 1764, II, p. 171.

545 Sharpe, *The New Testament translated from Griesbach's Text*, London, 12mo, 2d ed., p. 257.

546 "*The English Hexapla*, exhibiting the six important English Translations of the New Testament Scriptures," London, 4to, 1841, *voce* "Acts xvii, 26."

[Have been collated for Texts and Versions; and examined for Variants, Commentaries, and Notes—

Le Jay's *Polyglotte*, Paris, fol., 1645, "Acta Apostolorum," V, part 2d, p. 120:—Walton's *Biblia Polyglotta*, Oxford, fol., 1657, V, pp. 588–9:—Greisbachii *Novum Testamentum*, Cantabrigiæ, 8vo, 1809, p. 329:—Id., Paris, 18mo, p. 338:—Wetstein and Griesbach's *N. Test.*, London, 12mo, 1808, *sub voce*:—Adam Clarke's *Bible*, *N. Test.*, London, 1836, I, p. 855:—Albert Barnes's "Notes, explanatory and practical, on the New Testament" (*Cobbin's reprint*), London, 4to, 1848, p. 485:—Scott's *Bible*, III, p. 335:—Henry's *Bible*, III, p. 613:—"Society for promoting Christian Knowledge's" *Bible*, "cum privilegio," Oxford, 4to, 1817, II, *sub voce*:—Bloomfield, "*Greek Testament*, with English notes," London, 4to, 1843, 5th ed., p. 639:—Alford, "*The Greek Testament:* with a critically revised Text," &c., Cambridge, 8vo, 1854, II, pp. 180–1:—&c., &c., &c.]

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Whatever may be, out of England, the general estimation in which her Universities are held for Hebraical scholarship, none will dare say that the country, which gave birth to a BENTLEY and a PORTEUS, has, in solid Greek learning, ever lacked a man to stand, like Jonadab the son of Rechab, "before (IeHOuaH) for ever.' The difference between the last century and the present, in English Hellenic studies, seems chiefly to lie in the fact that, having exhausted extant literary sources in Grecian drama and philosophy, the critical apparatus derived from those honored pursuits is now becoming intensely directed towards the verbal restoration of the original books composing the New Testament; and the names of DAVIDSON, ALFORD, SHARPE, and TREGELLES, are the well-known representatives of this new school, in different phases of its tendency.

The first-mentioned, speaking of the Palestinic period some 1800 years ago, allows: "The age was one of illiterate simplicity. The apostles themselves were from the humblest ranks of society. Their abilities and education were tolerably alike. * * * The age was illiterate. They belonged, for the most part, to a class of society unpractised in the art of writing."[547] The second frankly avows: "I do not hesitate to say that [*verbal* inspiration] being thus applied, its effect will be to destroy altogether the credibility of our Evangelists."[548] The third published, last year, that most useful little book, *Notes introductory to the New Testament.* And the fourth uses the following language: "It is a cause for thankfulness that the common Greek text [of the New Testament] is no worse than it is; but it is a cause for *humiliation* (and with sober sadness do I write the word) that Christian translators have not acted with a more large-souled and intelligent honesty."[549]

The foregoing remarks arise from the imperative necessity of

[547] *Introduction to the New Testament*, &c., London, 1848, I, pp. 408, 417. JO. LAMIUS (*De eruditione Apostolorum. Liber singularis in quo multa quæ ad primitivorum Christianorum literas, doctrinas, scripta, placita, studia, conditionem, censum, mores, et ritus attinent, exponuntur et illustrantur:* editio altera, 4to, Florentiæ, anno MDCCLXVI, "Censoribus permittentibus," pp. 477–991),—publishing in Italy when the Italian Catholic mind had not yet endured a "Francesco," a "Maffei," or a "Bomba,"—had long previously established apostolic incapacity in the republic of letters. As one among the "workies"—and I say it with pride—to tread down, and keep down, what embers of intolerance may yet smoke in my adopted country, I can join in gratulation with citizens of our republic of America—mais (ici) nous avons changé tout cela."

[548] *Greek Testament: with a critically revised Text*, &c., London, 1854; I, Prolegomena, p. 20. ALFORD (II, p. 181) expressly cautions us to read *Acts* xvii, 26—"Not, 'hath made of one blood,' &c., as E. V. but 'CAUSED EVERY NATION OF MEN (SPRUNG) OF ONE BLOOD,' &c. See Matt. v, 32, Mark vii, 37."

[549] *Account of the Printed Text of the Greek New Testament*, London, 1855, p. 267.

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vindicating, once for all, in ethnological discussion, the accuracy of my colleague's and my own observations in the joint volume which preceded the present."[550]

Those assertions having been flatly contradicted, Dr. Nott,[551] when resuming the subject, stated, "The word *blood* is an interpolation, and not to be found in the original texts. The word *blood* has been rejected by the Catholic Church, from the time of St. Jerome to the present hour. The text of Tischendorf is regarded, I believe, generally as the most accurate Greek text known, and in this the word 'blood' does not appear. I have at hand a long list of authorities to the same effect; but as it is presumed no competent authority will call our assertion in question, it is needless to cite them. The verse above alluded to in Acts should, therefore, read:—

"'And hath made of *one* all races (genus) of men,' &c.

"The word *blood* is a gloss; and we have just as much right to interpolate *one form, one substance, one nature, one responsibility*, or anything else, as *blood*."

Many incompetent authorities, nevertheless, still continuing to question my collaborator's correctness, I feel it incumbent upon myself to prove that he was perfectly right. I hope the foregoing array of texts and references, among which is TISCHENDORF'S much-prized authority, will obviate future discussion of others amongst themselves. It will forever with myself.

But, so swiftly does archæological criticism advance on the European continent, that even Tischendorf's Text now falls—although in this particular *verse*, by leaving out "blood," the highest Catholic Hellenism (as it generally does) coincides with that employed in the "rational method"—behind the age of LACHMANN'S; whose Text heads the list, justly eulogized by TREGELLES[552] in these words:—"The first *Greek Testament*, since the invention of printing, edited wholly on ancient authority, irrespective of modern traditions, is due to CHARLES LACHMANN."

It becomes, in consequence, evident to the reader that scientific arguments (in England at last, as they have ever been on the continent), in which texts of the Greek Scriptures are involved, are neither carried on, at the present day, upon the obsolete English Version of

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[550] *Types of Mankind*, Chap. XV, "Biblical Ethnography:—*Section E.*—Terms, Universal and Specific"—pp. 558–9.

[551] *The Moral and Intellectual Diversity of Races*, &c.—*from the French of Count A. de Gobineau* — by H. HOTZ; Philadelphia, J. B. Lippincott & Co., 12mo, 1856; appendix C., p. 512.

[552] *Op. cit.*, p. 113: See also the same author's admirable "Lecture on the Historic evidence of the authorship and transmission of the Books of the New Testament," London, 12mo, 1852, *passim*.

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king James, nor upon the antiquated "textus receptus" of the old printed Greek exemplar;—but are henceforward to be made exclusively upon a *Textus revisus* that pending researches are combining to establish—some of the slighter difficulties in regard to which are manifested above in the various readings of *one* line of the Greek "Good Tidings." And, in order to substantiate what I have just said, that Romanist learning frequently agrees with the most rigidly exegetical, a quotation from the commentary of BISHOP KENRICK[553] will, in these United States, not fail to be respected:—

Text, Acts XVII, 26—"And He hath made of one all mankind."

Note, on MSS. and traditions, "5. G. P. 'of one blood.' The Vulgate reading is conformable to the Alexandrian and three other Manuscripts, as also to that used by Clement of Alexandria. The Coptic version agrees with it."

Those who desire to pursue speculative guesses as to how, why, when, and by whom, the word αἵματος (*blood*) crept into the Text, will readily find, amid the works cited (*supra*, note 546), some very learned and ingenious explanations, and more commentaries inexpressibly silly. None, however, can be discovered that satisfy, at one and the same time, the exigenda of archæological, palæographical, and ethnological criticism.

As to the first requirement: It was shown from HENNEL[554] that the passage in question was not autographed by St. Paul himself, but proceeds from his secretary—the writer of Acts—probably author of the IIId Gospel, supposed to be "St. Luke." The learned and Reverend LORD ARTHUR HERVEY judiciously remarks:—"There is also a peculiar difficulty in dealing with the Scriptures in such matters, from our ignorance of the precise limits of inspiration, and of the degree of control exercised by the Holy Spirit over the writers, compilers, and editors of the sacred books, in such matters as history, science, and the like. * * * It certainly does not seem to have been the purpose of inspiration to teach miraculously any arts or sciences, and therefore it should not be deemed more derogatory to the inspiration of St. Paul or St. Luke, that they were not beyond the most learned of their contemporaries in the science of chronology, than it would be were we to discover that St. Paul came short of modern skill in the art of tent-making, or that St. Luke had not all the physiological knowledge attained by the most eminent physicians of our

[553] *Acts of the Apostles*, New York, 8vo, 1851, p. 111.

[554] *Types of Mankind*, p. 559.

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time."[555] When, therefore, as in four out of the five new-school commentators just cited, we behold really learned and strictly orthodox Churchmen, our contemporaries, making such honest admissions, a "Protestant dissenter" like myself,—whose education has been derived from totally different pursuits, in lands altogether foreign to their insular associations—may legitimately re-examine Pauline subjects from the archæological stand-point alone. Hence, the only really historical fact deducible from all the above quotations is, that the Greek word "blood," not being in the MS. used by CLEMENS *Alexandrinus* (A. D. 192–217), but occurring in that studied by IRENÆUS (A. D. 140–202), the intercalation was already made within say 150 years after the unknown year of the demise of St. Luke.

Now, any one who has inspected ancient Greek manuscripts and epigraphy (I myself have only seen a few decades), knows very well that, in the most archaic, the words run on, without divisions, in the same line "continuâ serie." Of the ancient Apostolic books extant we possess none written earlier that the 5th–6th centuries of our era,[556]—that is, about 200 years later than Clemens and Irenæus, or some 350 posterior to St. Luke; and in the two most antique codices, LXX *Alexandrinus* and *Vaticanus*, the word αἵματος does not recur. No one either will pretend that St. Luke took down St. Paul's speech *at the time;* or that the Evangelist used stenographic processes,—any more than claim that the "reporter" at Athens adopted Morse's magnetic telegraph. Hence, neither the credibility of St. Paul, nor that of St. Luke, is involved in our debate.

The simplest and most rational method of explaining why this word "blood" crept into the later Greek Texts,—into the Latin it never did —is seen upon reflecting how, some early Christian anchorite, devoutly poring over his MS. of *Acts*, had his attention arrested, whilst reading "and hath made of one," by a natural and impulsive query—"*one!* one *what?*" As a memento, he noted "αἵματος" on the margin of his exemplar; but unaccompanied by a note of interrogation "?"—because such interjectional signs were not then invented. Within a generation or two afterwards, but before Irenæus, some amanuensis, transcribing our anchorite's much-worn codex into less archaic calligraphy and orthography, meeting with αἵματος on the margin, fancied that the word had been accidentally omitted, out of the *Text*, by the antecedent scribe. So the latter, with no fraudulent intent, any more than our aforesaid anchorite, *inserted* the Greek for "blood" in his own transcript; to the gladdening of the hearts of some pious readers of English,

[555] *The Genealogies of our Lord and Saviour Jesus Christ, ascertained in the Gospels of St. Matthew and St. Luke*, &c., London, 8vo, 1853; pp. 249, 256.

[556] *Types of Mankind*, pp. 612, 714.

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and the bewilderment of the minds of others, 1600 years later, as well in Old England as in New.

Thirdly. However learned, however venerable, may be the scholars whose words I have cited with no disrespect, none of them will lay claim to proficiency in *Ethnology*, nor have any of them spent half a lifetime in the Levant. If they had, they would have known that there, at this very hour, the same old repugnance (which their classical scholarship makes them perfectly well cognizant of, in ancient *Alexandria* particularly) is still rife now with evils to human welfare that have always rendered *Jews* and the *Greeks* antagonistic to each other. I remember (and have I not shuddered over its blackened ruins?) how, at Tripolitza, on the first flash of Greek independence, when, capitulating on the faith of the "honors of war," the Turkish garrison and Ottoman community were massacred, that, whilst the Mainiot palikaries spared a few of the Muslim girls and boys, they did not leave a man, woman, or child, of the Israelites alive. Eye-witnesses afterwards confirmed to me such atrocity during 10 months (1829) that, "for my sins," I waited at Napoli di Romania in the vain hope of obtaining, from Capodistrias, a tribunal whence to obtain back, in part, the value (only $800,000) of 36 cargoes in which my father was concerned, robbed by Greek pirates between 1824 and 1828. I remember too, that it was this soul-harrowing outrage—first of hundreds perpetrated by Moreot Christian serfs—that caused Mussulman reverberation at the butcheries of Smyrna, Scio, and Haïvalí; and, although Mohammed Ali's iron firmness joined to a numerous and tolerably armed European population alone spared us (1822) from witnessing similar abominations in Egypt, I recollect that, wherever, at Smyrna especially, some hapless Greek fugitive dodged the tophaik or yatagan, his hiding-place was invariably betrayed if known to any Jew; who, after Tripolitza and Missolonghi, naturally felt—

"And if ye wrong us, shall we not *revenge?*"

So true is this, that the Hebrew *serráfs* (money-changers — not seraphs) evacuated Greece exactly in the ratio that the Ottoman lords of the manor were forced to strike their tents and flee. No Hebrew lives willingly where Greeks rule; any more than (and partly for the same reason) he likes residence in Scotland or in Connecticut: and, even in their commercial relations everywhere, Grecian and Israelitish instincts are invariably in antagonism. Now, classical history on the one hand, the New Testament and the Talmudic books on the other, demonstrate precisely the same hostile and repulsive feelings, between the Shemites of Hierosolyma and

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the "Ar dres Athenaioi," much farther back than the day when St. Paul and St. Luke were jibed by Indo-European mobility at the Areopagus. I need not dwell on the context of *Acts XVII*, to establish the non-success of two Jews—one a "Hebrew of Hebrews" —who in cacophonious Hellenistic-idiom[557] addressed the orthoepic and satirical men of Athens; but, I maintain, and if necessary hereafter will historically prove, that the speaker (whether St. Paul himself, or St. Luke, or the "reporter") in making use,—amidst the knot of hard-hearted, if not soft-headed, Athenian "gamins" collected on Mars' Hill—of the phrase "hath made of *one*" all mankind, intended thereby to deprecate that (by the Jewish speaker strongly felt) Hellenic instinctive xenolasia toward Hebrews, which led the former (boasters that themselves were *Autochthones*) to repudiate the notion that a particle of Jewish "blood" flowed in their own veins. If this fact be disagreeable, I cannot help it. In anthropology the maxim must be —

"Tros Tyrusque mihi nullo discrimine agetur."

The question, of the existence of AIMATOΣ in the original manuscript of St. Luke, "me paraît," as Mariette says of that of the Apis-cycle (*supra*, p. 404), "définitivement enterrée." With it, also, its imagined corollary, that St. Paul ever meant that all the races of mankind, within the Roman limit of geography in his time, were "made of one *blood*." Polygenists, therefore,—so far as Acts xvii, 26, be concerned — are henceforward exempt from suspi-

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557 Ἑλληνιστής, διαλεκτος ξένη, *Hellenismus, Lingua Hellenistica*, &c. — Consult SAMUEL DAVID LUZZATO (Professor in the Rabbinical College of Padua), *Prolegomeni ad una Grammatica Ragionata della Lingua Ebraica;* Padova, 8vo, 1836, pp. 11, 67, 78–95: — GIAMBERNARDO DE ROSSI (*Della Lingua propria di Christo e degli Ebrei nazionali della Palestina da' tempi de' Maccabei dissertazione*, Parma, 8vo, 1772, pp. 7, 16, 37–9, 85–129, 145–8). From the latter I present merely a few abstracts. The Palestinic Jews always repudiated Greek translations. So particular were their lineal descendants in Spain, that RABBI IMMANUEL ABOAB says (in his rare *Nomology, or Legal Discourse*), "una sola letra, que tenga de mas o de menos (aun que no varie el sentido) queda siendo profano, y no nos es lecito leer en el. * * * En la biblias griegas intitoladas *de los Sententa Interpretes*, hallo una variedad y differencia tan grande en les estampas que no ay passo conforme." The Talmud (*tract Sabbat*) gives the injunction of RABBAN GAMALIEL, how *translations* should be thrown into "luoghi cenosi e sporchi, acciocchè eglino imputridiscano da loro medesimi." In another of his prodigious labors on the Text (*Compendio di Critica Sacra*, Parma, 8vo, 1811, p. 88), DE ROSSI victoriously exonerates the Council of Trent from accusations of tolerating no Bible but the Vulgate. Here is his Italian version of the text of their decree, — the Latin of which is in hie other work (*Præcipuis Caussis*, Turin, 4to, 1769, pp. 79–80).

"Considerando che non piccol vantaggio ne verrebbe la Chiesa, qualora si conosce, di tutte le latine edizioni che girano de' sacri libri, quale s'abbia a tenere per autentica, [the Council] stabilisce e dichiara, che questa stessa edizione antica e volgata, la quale da un lungo uso di tanti secoli è stata nella Chiesa medesima approvata, sia tenuta per autentica."

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cion of heresy. But, before quitting so dry a subject, I must gratify the reader with a pair of extracts from two different works,—parallel in critical calibre, and similar through an accident, that each of their authors boasts of an Allemanic surname—which will exemplify into what helpless vagaries this apochryphal noun "blood" has lifted up two most talented monogenists above the multitude.

Sample A is chosen from the pages of Sir Robert H. Schomburgk,[558] writing for the English public.

A.—"Many scoffers have attempted to establish the hypothesis, that the first germs of the development of the human race in America, can be sought for nowhere but in that quarter of the globe; but unless it can be proved that the laws of nature are in direct violation with Mosaic [*sic!!!*] records, which expressly say that 'God has made of one blood all the nations of men to dwell on all the face of the earth,' we must still appeal to that Holy Book for interpretation [that is, 'we must' hunt through the *Pentateuch* for Acts XVII, 26 !]."

Sample B is taken from some pages in the *Charleston Medical Journal*,[559] composed by an author[560] writing for the American public. With the exception of the figures appended, our compositors have been so good as to set it up in fac-simile.

B.—"We are advocating the doctrine of the Unity of the Human Race simply on scientific principles. We care not to make issues on points that have no legitimate bearing on the subject to which we are restricted in this discussion. Those with whom we intend to have no controversy have nothing to apprehend from our criticisms. We may, however, here observe that the figures of dogs and of men (the latter only are of any scientific value,) on the eastern monuments, have been carefully studied and delineated by master-minds — men, at whose feet Mr. Gliddon has set as an humble copyist. They have commenced giving to the world the result of their scientific researches. Both Lepsius and Bunsen have already proclaimed their belief in the doctrine of the Unity of the Human Race, and the former, as we are informed, is now engaged in a work, in which he will offer reasons for the faith that is in him. Thus these monumental records, which caused Gliddon to pronounce in the language of scorn and obloquy a tirade against the scriptures, convinced the minds of Lepsius and Bunsen of their truth, and filled them with humility, reverence, and awe. Their scientific researches satisfied them of the doctrines proclaimed by Moses, and confirmed by Paul.

"'And (God) hath made of one blood all nations of men for to dwell on the face of the earth, and hath determined the times before appointed, and the bounds of their habitation.' Acts 17 ch. 26 v.

[558] *Twelve Views in British Guiana*, &c., London, folio, 1841, p. 29.

[559] Charleston, S. C., 1854 — republished as a *Monograph*, "An Examination of the characteristics of Genera and Species as applicable to the Doctrine of the Unity of the Human Race," pp. 22–3. Its author rides, or is bestridden by, two hobbies, — the one theological, and the other mammalogical. His duplex equitation ἐπάνω ἀνῶν—(See STRAUSS, *Vie de Jésus*, transl. Littré, Paris, 1839, II, 1e partie, pp. 302–13)—always puts me in mind of an "old, and musty" Greek proverb, how — "Leucon carried one thing, and his ass another."

[560] *Types of Mankind*, p. 628, foot-note 210; and "Memoir of Morton," pp. liii–vi.

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"These distinguished naturalists both arrived at the conclusion, from these very 19
monuments, that the negro races had only been developed in the course of ages within 20
the African tropics and were derived from Egypt. The minds of men are differently 21
constituted, and we here perceive what opposite impressions are made on different 22
minds in visiting the same localities, and in investigating the same subjects." 23

Now, in reprinting this specimen of the style adopted by a "Dutch-Reformed" theologer in this country, my only regrets lie in the unavoidable mention of two world-renowned, and by myself much-honored, names — Chevaliers BUNSEN and LEPSIUS: at the feet of whom (like St. Paul "at the feet of Gamaliel")[561] I have always felt proud to sit for instruction,—received, as not a slight portion of what little I know has been, oftentimes with mine own feet under their respective mahoganies.

What concerns the reader, however, is the logical deduction,—on comparing *lines* 14–15 with *line* 19 of the above extract—that "Moses" and "Paul" were "distinguished naturalists both"!

Nobody, who reads, writes, and ciphers, can be such an ignoramus as not to know, that Chevaliers Bunsen and Lepsius—occupied in other equally-elevated branches of human science, such as archæology, history, philosophy, and linguistics—would disdain (whatever, as educated gentlemen, they may read about Natural History) to accept an attribution to themselves severally of any scientific *spécialité* not within the circumference of their respective studies. The pages of this volume will be the first intimation either of these *Savans* receives that both of them are suspected to be "naturalists,"—and that, too, by a fractious sciolist who actually wrote a book to demonstrate the *Unity* of Mankind without having read the first syllable of PRICHARD.[562] "Potete frenarvi dalle risa? O miei valenti amici!"

Where did either Chev. Lepsius or Chev. Bunsen ever say, that "negro races * * * were derived from Egypt" [?] (*supra*, *lines* 20–1).

The last three *lines*, 21–3, prove how the same writer—utterly destitute of any Egyptological works—fancies that the great Prussian Ambassador to Rome and England has visited Egypt. Everybody else knows that Chevalier Bunsen's travels never extended beyond Europe.

Finally, the only expression, known to the world, of Chev. Lepsius's impressions, in regard to human monogenism or polygenism, is derived from a casual remark made by him in a friendly letter to my respected colleague DR. J. C. NOTT: and by the latter inserted in our first joint publication, for the very object of not involving the honored Egyptologist of Berlin in any blame that might accrue to

[561] Were it obligatory upon me to digress upon Pauline themes in general, their analysis would cost no more trouble than reference to an octavo (London, 1818), attributed to the capacious brain of a great jurist—JEREMY BENTHAM—entitled, "not Paul, but Jesus;" and published under the pseudonym of GAMALIEL SMITH, ESQ.

[562] *Types of Mankind*, p. liv.

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the Doctor and myself for open statement of our common ethnological opinions: and it is, truly, in perfect harmony with the literary probity manifested—by every theologer who may have experienced some *cutis anserina* whilst perusing "Types of Mankind"—which has not merely prevented any one of them from honestly mentioning *where* he learned that Chev. Lepsius[563] "proclaimed" his now very unbiassed sentiments on "the doctrine of the Unity of the Human Race,"—but which has been unable to impede Dr. Nott and myself from responding to the wide and loud calls [see *Alphabetical List of Subscribers*, infra] for another and a stronger book, through the same Publishers, announced as the Earth's "Indigenous Races."

The subjoined remarks, by our ever-valued colleague MR. LUKE BURKE,[564] have already put a direct question to any man who voluntarily adventures into the ethnological arena after this year of our XIXth century: whilst "old, and musty" TERENCE[565] supplies me with all I need repeat in the premises·—

"Si mihi pergit quæ vult dicere, ea quæ non vult audiet."

There still remains, in order to group together all the preceding arguments into a "corps de doctrine," the very subject which suggested my epigraph to this chapter, viz., "the *monogenists* and the *polygenists*." What deduction will either school draw from the present accumulation of facts? Time only can show. For my own part, I have met with no reason to emend, or change, the position taken in the last course of lectures delivered in New Orleans,[566] as regards my individual opinions on the *unity* or *diversity* of human origin. It was the following:

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[563] *Types of Mankind*, p. 233. Whilst these pages are being stereotyped, I have again a fresh and welcome proof of the Chevalier's kind reminiscence, through the reception of his most recent work—*Über die Götter der Vier Elemente bei den Ägyptern*, Berlin, 4to., 1856.

[564] "Does he speak as a theologian, or does he speak as a man of science? If as a theologian, he may argue in peace to the end of the chapter, we shall not care to disturb him; but if he claims to reason as a scientific man, then we expect that he shall submit to the laws of science; then we consider ourselves privileged to judge him by the rules of common sense. Then he must be reminded that those who live in glass houses ought not to throw stones, and that those who use theology to pinion scientific men within hopeless dilemmas, may find in the end that it is less difficult than they supposed to turn the tables upon themselves; for assuredly, if scientific men were only to rouse themselves to the same zeal and love of conquest which animate theologians, there would soon rain down upon theology such a pitiless storm, as would require stronger brains to weather than any we have at the present day to contend with."—*Charleston Medical Journal and Review*, Charleston, S. C., July, 1856, X, No. 4, Art. 1, "Strictures," p. 444.

[565] TER., *Andr.*, V. iv., 17.

[566] On "Ethnology—Egypt's testimony"—9th lecture (of 15) delivered before the Lyceum of the Second Municipality, Feb. 20, 1852:—New Orleans "Daily Crescent," Feb. 21.

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"Some years of association with Dr. Morton [since 1852 confirmed "by almost-constant investigation of the problem for myself] have "gradually led me to the conviction:—

"1st, that every argument hitherto brought forward on the *unity*-"side is either refuted or refutable; but that,

"2d, whilst the reasonings in favor of the *diversity*-view preponde-"rate greatly over those against it, I do not, nevertheless, hold the "latter to be, as yet, absolutely proven.

"Lest such assertion should appear paradoxical, I would explain, "—that the proofs of *diversity* are chiefly of a negative character; "and, on the other hand, these questions being still 'sub judice,' "some discovery in science, now unforeseen, may hereafter establish "*unity* upon a certain basis."

It is not, however [as the reader of our last work can well understand], from any submissiveness towards dictates emanating from the theocratical point of view, that I consider the dogmatic argument to stand, down to the present moment and in all the works known to me, among those propositions hitherto *unrefuted*. Want of space alone[567] prevented further publication, of MSS. which covered biblical ethnology, on that occasion; and the arrangement of the several chapters of this volume has equally precluded (save in respect to *Acts*) continuance of scriptural branches of inquiry on the present. In the interim, during more recent studies in Europe, I have been enabled to collect former *desiderata* that, some day, may find utterance in matured shape; when asseverations in support of monogenism, grounded upon the *Textus receptus* whether of Old or New Testaments, shall be critically examined.

Persevering consistently to the end in that method of quotation previously announced [*supra*, p. 403], it is with three extracts from works of our living contemporaries that I submit, to others, the thoughts and ideas in which I participate, couched in language far superior to that through which I might have endeavored to express them. They are emanations of the French mind in our pending age; each differing from the two others as concerns the subject whence it takes its point of departure, but all uniting in grandeur of sentiment, eloquence of diction, and truthfulness of utterance.

"Strange destiny that of theology! That of being condemned never to attach herself except to systems which are already crumbling down: that of being, through her essence, the enemy of every new science and to all progress. Yes,—she foresaw that a day would come to dethrone her,—this theology, this sacerdotal science—when, during

[567] *Types of Mankind*, pp. 626–7.

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paganism, she sought to frighten humanity by the myth of Prometheus. She struggled to depict, with the colors of impiety, the man who was going to demand of Nature its secrets and its laws; and she manacled him beforehand to a rock: but time, far from riveting the chain, has been unceasingly detaching it. The spread of man's discoveries, the importance of his victories, compel evermore the public conscience to admire, as a noble independence, as a courageous effort, that which theology wished not to regard but as a haughty attempt that the All-Powerful had punished by ill-fortunes and chastisements. We willingly approach, now-a-days, the tree of knowledge; and we no more believe that it is Satan who presents us with its poisoned fruits."[568]

"16. It is said that the telescope of Herschell [that of Lord Rosse has since performed mightier wonders], which has unveiled to us nebulæ before unknown, magnified twelve thousand times. If a glass were made of sufficient power to magnify a million times, the milky-ways would be multiplied prodigiously; and would seem to us so crowded together, that they would form but one spherical vault of suns shining in those unknown regions. And yet all these suns are separated from each other by profound deserts of darkness! Here, before this wide circle of bright bodies, the power of human view must stop: here must be the barrier which shuts from our vision the rest of the creation. But this is not the limit of the universe.

"17. Here thought and language fail to express the grandeur of the reality. We can scarcely imagine it by the assistance of time and space. To overload the mind with accumulations of time and space, is still to prescribe limits to that which has none,—in adding duration to duration and extent to extent. Let us suppose as many suns and worlds as we have enumerated: in our transports of enthusiasm, let us bound beyond myriads of spaces a thousand and a thousand times more vast: let us unite all those heavens, and exaggerate the number of them as far as the imagination can reach,—still, beyond this immeasurable portion of the creation in which the dazzled thought is lost, the universe continues without bounds and without measure.

"18. Overwhelmed by the majesty of the universe, human intelligence sinks into a state of insensibility before its unfathomable

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[568] Alfred Maury, *Essai sur les Légendes Pieuses du Moyen-Âge; ou Examen de ce qu'elles renferment de merveilleux, d'après les connaissances que fournissent de nos jours l'archéologie, la théologie, la philosophie et la physiologie médicale:* Paris, 8vo, 1843, "Introduction," pp. xix–xx.

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depths. Those vast and inscrutable abysses, which man sees but imperfectly, are only a point in that infinity of space where the most solid thoughts, the most profound meditations, and the science of all ages, are lost.

"19. In presence of this grand spectacle, man finds within himself an instructive sentiment, which manifests to him an Almighty and Creative Power, as surely as his eyes show him the light. Then creation is explained, its object is understood. To feel the existence of infinity is to have a revelation of eternity,—to contemplate Nature is to take pleasure in what is best,—to study it is to seek the truth,—it is to take the path which leads to GOD,—to recognize the workman in his work. And why should it not be so, when His glory is written in the heavens? Each sun is a letter of His name, and His name is infinite! What more striking evidence of the Divine thought than that of the work which received and reflected it? The universe is then to the human race what it has been, is, and always will be: the daily and eternal instructions of a Master who wishes to show Himself in the harmonies which He has placed in it: a magnificent expression of the inaccessible intelligence which embraces, possesses, and holds dominion over all: a sublime act of the Divine understanding, which, in the eloquent simplicity of its art, made use only of a single substance to produce, at a single cast, the grain of sand which the wave rolls on our shores, and the spacious continents which rise from our globe: an infinite substance, the first and only one of all things, and, at the same time, the universal and immediate means appointed for the government of space, matter, movement, and life: the element and vehicle of the phenomena perceived by our organs, susceptible of exercising the most delicate functions—those even which are imperceptible to our senses, imponderable to our instruments, and yet able to break in pieces worlds, with a violence incalculable, in the unbounded employment of its strength: which is itself its own generating and preserving principle: which never creates nor annihilates, but organizes and develops life, regulates the superabundance of it by death, and thus continues the untroubled course of Nature: which is continually bringing to perfection, and remains itself without change: which produces the most varied contrasts, and acts without any variation: which has scattered in the wide plains of infinity thousands of millions of centres of movement appropriated to each of them, and reduces them to one: which draws from unity its inexhaustible resources, and contains them in unity: in fine, whose effects are so many innumerable combinations, and whose cause is unique and profoundly simple. For one single matter,

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spread throughout the universe, is its origin, its preservation, and its law."[569]

"There seems to be accordance upon one point. It is, that, alongside of theology, a new science is rising up, viz., '*the science of religions.*' * * * The world is positive, because it grows old: but it had been credulous, insane; intoxicated with poetry and superstition; in love with that Nature which we now-a-days cause to pass through the crucible."[570]

G. R. G.

PHILADELPHIA, *February*, 1857.

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[569] TRASTOUR, *Caloric. — Origin, Matter, and Law of the Universe*, New Orleans, 8vo, 1847, pp. 7–8. "Élève de l'École polyteonique" himself, and a mining-Engineer of high position in Mexican and Central American localities, my friend M. Trastour understands, as well as the reader, that, absolutely unacquainted with Physics, I have no opinion whatever upon an imponderable termed "Caloric."

[570] VINET, *Les Paradis Profanes de l'Occident*, Paris, 8vo, 1856, p. 1.

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CHAPTER VI.

SECTION I.

COMMENTARY UPON THE PRINCIPAL DISTINCTIONS OBSERVABLE AMONG THE VARIOUS GROUPS OF HUMANITY.

(*With an Ethnographic Tableau.*)

BY GEO. R. GLIDDON.

UNDER the above heading, I had elaborated a more diffuse argument, than in the remaining few pages of this volume can now be submitted to the reader. But, in the first place, the preceding chapters, by Messrs. Maury, Pulszky, Meigs, and Nott,—independently of a good deal of matter latterly transferred, for the sake of giving it a more appropriate place, back into my own Chapter (V.)—have already covered a vast range of ethnological inquiry; and, in the second, our Publishers especially enjoin upon me not to let this book exceed in bulk much "above 600 pages," in order that its artistic appearance, in view of the extra-thickness caused by our lithographic plates, should not vary greatly from that of *Types of Mankind.*

It being taken for granted, therefore, that the reader of the present work—should he be interested in ethnology—is acquainted with the contents of our former one, I feel persuaded that, with the facts and the bibliographical references comprised in the two, if to both he may be pleased to add Norris's tasteful edition (1855) of PRICHARD'S *Natural History of Man*, together with the latter's *Six Ethnographical Maps*, such reader is fully competent to make his own "Commentary" on the distinctive characteristics of the various fifty-four races of mankind presented to his eye in the annexed **Ethnographic Tableau.**

Hence my part may properly limit itself to the continuation of a few more extracts, that generalize, in some degree, thoughts suggested by its inspection.

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"Were it possible," wrote the vigorous expunger[571] of a dogmatical work which of erst tried to uphold, categorically, the "unity of the human species"—"Were it possible for an individual to gain access to a situation sufficiently commanding, and to be indued with optics sufficiently powerful, to take, at once, a clear and discriminating survey of the whole earth—could he thus obtain an accurate and distinct view of the appearance and sensible character of everything existing on its surface—diversities of colour, form, dimension, and motion, with all other external properties of matter—were such an event possible, one of the most curious and interesting objects that would attract our spectator's attention, would be, *the variety discoverable in the complexion and feature, the figure and stature of the human race.* In one section of the globe, he would behold a people lofty and well-proportioned, elegant, and graceful; and in another, not far remote, a description of men diminutive, deformed, unsightly, and awkward. Here would rise to view a nation with flowing locks, a well-arched forehead, straight and finely-modelled limbs, and a complexion composed of the carnation and the lily; there, a race with frizzled hair, clumsy and gibbous extremities, a retreating forehead, and a skin of ebony. In one region he would be charmed with a general prominence and boldness of feature, an attractive symmetry, a liveliness of air, and a vigor of expression, in the human countenance; while in another, he would be disgusted hy its flatness, vacancy and dulness, offended with its irregularity, or shocked at its fierceness. Between these several extremes would appear a multiplicity of intermediate gradations, constituting collectively an unbroken chain, and, manifesting at once the simplicity yet diversity of the operations of the Deity, in peopling the earth with human inhabitants."

After refuting, point by point, every postulate advanced by his scholastic but unscientific author, and exposing the sophisms through which each is supported, Dr. Caldwell remarks on the doctrine itself:

"Its principles, if admitted to their full extent, would lead to results which our author would he himself the first to deprecate. They would prove unfriendly in their operation to morality and religion, and even subversive of the dignity of man and the order and harmony of the physical world. They are calculated to favor a system of levelling and consolidation which would reduce to the *same species* many animals that appertain, in reality, to *different genera.* By their seductive and pernicious influence we might be gradually led to a belief in the original identity of even the white man himself, the golok [*hylobates Hoolook?*] or wild man of the woods, and the large Orang-outang; so apparently inconsiderable are the shades of difference between them, when their systems are analyzed, and their individual features and limbs attentively compared with each other. When examined, however, and compared in their general result, their dissimilarities are so numerous and striking, as to constitute insuperable objections to such a monstrous hypothesis. We become at once convinced by the evidence before us, that differences so wide and radical, could never have been produced by the agency of any common causes now in operation on our globe; but that the beings marked by them belong to races originally and immutably distinct. *Such precisely is the case in relation to the different races of men.*"

"It now remains to be said," continues the profound physiologist DESMOULINS,[572] "whether, in each of these races, of these species, men were children of the earth whereupon history perceives them from times the most obscure; or, if, coming in similar likeness from one

[571] *Criticism — For the Portfolio* (Philadelphia, 3d series, vol. iv., 1814; articles 1 and 4, pp. 8–9, 363–4)—of "An Essay on the causes of the Variety of Complexion and Figure, in the Human Species, &c., &c. By Samuel Stanhope Smith, D. D. LL. D., &c., &c." I owe acquaintance with this most powerful argument to the favor of Mr. George Ord, President of the Acad. of Nat. Sciences; who informs me that it was written in early life by one since eminent in medical and ethnological questions—the late Dr. CHARLES CALDWELL. These papers are an enlargement of a previous critique published in the *North American Review*, July, 1811.

[572] *Races Humaines*, 1826; pp. 155, 158.

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and the same native country, they became diversified according to the novelty of each climate; of which the influence, singly, or united with that of a supposed sidereal revolution, would thus have transformed children of one and the same father,—creating there some negroes, here some Kourilians, yonder some Finns, hither some Mongols, &c. * * * Races and species, everywhere that they remain pure and without mixture, preserve invariable all the traits, all the physical characters which the first observers saw in them, and that they indubitably possessed from the very beginning. Their alteration is everywhere the product of intermixture, the fusion between heterogeneous populations. Climate and all the influences engendered by it have alone no hold, whether upon the form of the body and face, or on the color of the skin, or upon that of the hair and its nature. These causes possess only a slight power, as will be seen in the following book, on the color of the skin in certain races. In all these mixtures there does not either result indifferently a mean of expression of traits of each race. Ordinarily, one dominates the other."

Denying, therefore, with Dr. Caldwell, that climatic changes of latitude or longitude have had any *permanent* influence upon the race-character of the human skin; and recognizing, with Desmoulins and Morton, no known causes subsequent in action to the Creator's coloring of each race, but direct amalgamation,—otherwise intermixture between different types—as explanatory of the endless *gradations* of color now beheld in humanity throughout the world; it follows that, according to my conception of the primitive state of mankind in each zoological province of creation, the shades in coloration of the skin, eyes and hair, must have been less numerous than appear at the present day after so many thousand years of interminglings and migrations. What may have been the exact primordial, or aboriginal, cuticular color of each type; into how many or how few distinct national tints they might be resolved, there seems to be (outside of the comparatively small area covered by the earth's historical nations), no means now of ascertaining; although some plausible conclusions are attainable through induction. In any case, the historical permanence of many colors being determined through monumental and written evidence for 3000 to 4000 years, we may fairly challenge objectors to produce evidence that other unrecorded shades did not exist contemporaneously. Egyptian monuments, Hebrew ethnology, Assyrian sculptures, Greek and Roman iconography, Chinese annals, Mexican and Peruvian antiquities, with many ancient descriptions of personages or nations,[573] combine to establish, in each geographical centre, that the peoples within and around it presented the same coloration as their descendants at this day,—all later variations being satisfactorily accounted for through phenomena produced by physical amalgamation between subsequent intruders and the primitive stocks. Thus, for instance, there are now two very distinct colors seen among the Israelites; one exceedingly dark, sallow, with black eyes and hair; the other, fair even to pallor, with light blue or hazel eyes, and

[573] All these positions are now proved, I take it, in the present volume.

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yellow or reddish hair; notwithstanding that, of all races, the Jews, especially in modern times, have striven beyond any types to preserve their blood pure from all admixture. And one may reduce the counter-argument of some monogenists who, with Prichard, have thrown overboard USHER'S B. C. 4004 for "Creation," viz., that, who can tell what the action of unnumbered chiliads of *pre*-historic ages may have done in changing one type into another?—to a simple rule of three: If 5000 years, as proved by every possible testimony, have done *nothing*, how much will any time do?

"Nothing," wrote Quoy and Gaimard,[574] the accurate observers who sailed round the world with Dumont d'Urville (1826–9), "better proves the difficulty that zoology presents, when one's object is to well characterize a species, or a variety of species, than the diversity of human races, admitted by naturalists. How, indeed, can distinctions, oftentimes so fugacious, become settled upon solid bases! When, in correct zoology, one would determine a species, it is by uniting the greatest possible number of individuals that some certainty may be attained. How, then, catch all those delicate hues constituting that which is called *facies*, through notes, drawings, and reoollections weakened by the distances one has traversed, and by the absence of the individuals one has to compare? In order to obtain positive results, it would be, therefore, necessary to do that which is, so to say, impossible; viz.: unite a great number of individuals of these varieties, for the purpose of comparing them together; and to cause oil-portraits to be made as perfect likenesses, in order to indicate the precise shade of the physiognomy. This has not as yet been done in a satisfactory manner, and any attempt to do it would encounter considerable difficulties during the rapidity of a nautical voyage."

Many of the obstacles, deplored thirty years ago by such qualified judges, to collecting an adequate series of ethnological likenesses, continue in force at the present day; but the photographic meliorations which Daguèrre's wonderful discovery has latterly received, combined with the dexterous application of colored plaster-casts to the human bust, have already removed the more serious impediments to future mechanical exactitude. To Dumoutier[575] unquestionably belongs the merit of first practising, on a large scale, this method of permanently securing faithful copies of Oceanic and Australian types. Blanchard's comments on this superb collection are worthy of careful perusal.

"The physiognomies, of the inhabitants of localities visited by explorers, have been often represented, through the aid of drawing, in accounts of voyages; but, in all, one may affirm it, these representations are imperfect. If there be, now and then, any which approximate to the truth, it is, so to say, always impossible to verify them. The anthropologist can,

[574] *Voyage de la Corvette l'Astrolabe; Zoologie*, Paris, 8vo, 1830; I, chap. 1, "De l'Homme;" p. 15.

[575] *Voyage de l'Astrolabe et de la Zelée; Atlas, Anthropologie*, Paris, fol., 1845–50; Text in 8vo, 1854, by BLANCHARD. Cf. *Bulletin de la Soc. Ethnol. de Paris*, 1847, I, pp. 284–5, 289–90. The original casts, exactly colored, but representing chiefly Melanian and Polynesian races, now adorn the Galerie Anthropologique at the Jardin des Plantes. My wife had only time to copy the tints given to each bust.

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therefore, have no confidence in them. He must renounce their employment in determining the characteristics of races; in a word, he cannot utilize them.

"Artists habituated to draw unceasingly the European type,[576] are unskilful, in the greater number of cases, in tracing the portrait and the true physiognomy of an American savage, or of a Polynesian Islander. They tend irresistibly to give him, more or less, the expression of those European faces which they are accustomed to reproduce through the art of design. Hence proceed all those likenesses of native races, from different parts of the world, that ordinarily resemble Europeans accoutred in a queer costume, and besmeared (*barbouillés*) with yellow, brown, black. M. Dumoutier has better understood what was necessary to be done in order to give an exact knowledge of the facial traits, and of the general form of the head, amongst those tribes he has observed.

"In each locality, he was at great pains to persuade some individuals to allow themselves to be moulded [in plaster], and we must believe that he well knew how to come about it. He has succeeded in bringing back a great number of casts taken upon inhabitants of the majority of places touched at by the corvettes *Astrolabe* and *Zélée*. M. Dumoutier has thus gathered a collection of busts of the highest interest, the greater portion of which are now placed in the 'galerie anthropologique du Muséum d'histoire naturelle de Paris.'"

After showing, nevertheless, that material difficulties in the execution of casts render even them somewhat faulty, by *closing* the *eyes* and *distorting features*, — and recommending that a daguerreotype should always accompany each head — Blanchard again remarks:

"Hitherto, anthropological museums being very inconsiderable, one has been obliged to resign one's self to comparisons too restricted for their results to be seriously generalized. These comparisons, furthermore, reduce themselves to very small affairs. At the scientific point, it is not allowable to dwell upon such variable impressions of tourists; and yet, this, even until now, is the principal stock of anthropology."[577]

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[576] Strolling one day (April, 1849), with my friend Dr. Boudin, through the *Jardin des Tuileries*, he drew my attention to a marble statue, "all standing naked in the open air," of Apollo (I think); "dont," as he observed, "les cuisses ont du nègre,"—at the same time that the upper part of the body is magnificent. This incongruity, however, received explanation through an odd circumstance; viz.: that the Parisian statuary commissioned to execute the work,—wishing to save his own pocket, and not being able to procure, at the price, a white man sufficiently well made-up to stand for a "torso" in his studio — hired a fine-looking negro-valet, then at Paris, as the cheaper alternative. Upon the latter's splendid bust he set, indeed, Phœbus's sublime head, but . . . he forgot the legs! In the same manner, subsequently (Oct., 1855), at the picture-gallery of the *Exposition Universelle*, my well-beloved cousin, Miss C. J. Gliddon, pointed out to me a couple of paintings, by an English artist, of scenes in Spain,—for richness of coloring and accuracy of costume unsurpassable; but, spite of beards or coquettish veils, each male or female face betrayed an English country-bumpkin. Again, I have seen Chinese colored sketches, of English officers and ladies walking about Macao during the war of 1841–2, exquisitely done; save that their eyes were all oblique, while their "Caucasian" features were lost in the Sinico-Mongol. But for possession of my old comrade M. Prisse's "Oriental Album" I should have been unable to indicate to the reader, — through any works known to me about the very peoples I know best — a faithful likeness of an *Arab;* and even this falls short of the most beautiful of all, viz., the portrait of the glorious and ill-starred ÂBDALLAH-EBN-SOUHOOD, Prince of the heroic Wah'abees (MENGIN, *l'Égypte sous le Gouv. de Mohammed Aly*, Paris, 1823, II, p. 142). The octavo text I happen to have; but the folio Atlas lies still with my library — and other things—somewhere in Egypt. So much in confirmation of M. Pulszky's four propositions [*supra*, pp. 96–97].

[577] *Op. cit.*, pp. 7–8, 47.

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If such are the lamentations of an ethnologist in the centre of science, at Paris, how unreasonable it would be to expect ampler collections of iconographic materials, illustrative of human types, elsewhere?

The iconoplastic inspiration of Dumoutier has been since applied, by M. DE FROBERVILLE,[578] with increased accuracy as regards coloration, to African races at Bourbon and Mauritius. Of sixty beautiful casts, representing an astonishing variety of Mozambique negroes, I was favored by this learned ethnologist with a sight of several; and I am free to state that they opened a new world of light to me as regards African populations on the eastern coast. Unfortunately these fac-similes are still inedited. On the other hand, plaster-moulding inevitably effaces the expression of the eye;[579] but this defect can now be counterbalanced through photography; nowhere employed with such thorough appreciation of anthropological exigenda as by MM. Devéria, Rousseau, and Jacquart, at the Muséum d'Histoire Naturelle. Compared to this Gallery,—save only the department of craniology, in which it is surpassed by the Mortonian collection at Philadelphia[580]—all other collections known to my personal observation, or through report, sink into insignificance. Skeletons, skulls, anatomical preparations; casts of entire figures, busts, and heads, colored and uncolored, of an immense number of nations; oil and water-colored portraits, daguerreotypes, photographs, of individuals from all parts of the world; not forgetting those exquisite colored models of Russian races, presented by Prince Demidoff,—all these, and other items by far too various for enumeration, already render the *Galerie Anthropologique* (as might have been inferred where French science directs) one of the glories of Paris, no less than foremost in the world's ethnology. In fact, such an admirable system has there been laid down, susceptible of indefinite expansion, that with very trifling aid from the imperial government, Paris might contain, amidst her thousand attractions to the student, as well as to

[578] "Rapport sur les races nègres de l'Afrique orientale au sud de l'équateur, observées par M. DE FROBERVILLE—*Comptes rendus des séances de l'Académie des Sciences*, XXX, 3 Juin, 1850—"tirage à part" 14 pages:—and *Bulletin de la Soc. Ethnol.* de Paris, 1846; i. pp. 89–90; and elsewhere in the *Bulletins de la Soc. de Géographie.*

This gentleman told me that the method he had employed was, to gum square bits of paper on the skin of each individual whose cast he had previously taken, and then to cause his artist to color them until the hue disappeared in that of the "torso" himself. Transferring thence this colored paper to the plaster-cast, the same process yielded a perfect copy of such person's cuticular coloration.

[579] See an example in M. D'Avezac's "Yéhou," exquisitely moulded though it was by the care of De Blainville, in our "Ethnographic Tableau," No. 27.

[580] There are, however, admirable materials, forming the nucleus of what might become a great anthropological museum, in the London Royal College of Surgeons.

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persons of education and leisure, every desideratum in anthropology. An appropriation of not more than 100,000 francs to the *Galerie Anthropologique*, coupled with official instructions to her consuls, chiefs of expeditions, governors, and naval commanders, scattered over the world, to collect—at national expense—*colored photographs* (front, back, and profile) of all types of man, male and female, within their several reach,—and executed upon an uniform scale, according to rules for measurements, &c., such as none but French administrative experiences know so well how to give—these two ordinances, "pure and simple," are, now, all that is required to make France, within five or ten years, as supreme in ethnology as she is in every other science. No other government in the world *will* perform this service towards the study of man; because the two or three others (that may have the power) do not possess, amid the *personnel* of their Executives, men of education sufficiently refined to appreciate "ethnology"—its true political value, or its eventual humanitarian influences. To such Cabinets, of cast-iron mould, appeal is useless, owing to their intellectual conditions; to others, like cultivated Sardinia for instance, its achievement would be almost impossible. If imperial centralization in France does not accomplish for MANKIND that which has been done everywhere in behalf of *beetles*, *snakes*, *bats*, and *tadpoles*, generations must yet pass away before, through any amount of private enterprise, those materials can be collected, in one spot, that might afford a comprehensive insight into this planet's human occupants.

Such are the disheartening convictions which general experience, gathered eastward and westward during former years, followed by some five exclusively devoted to ethnological inquiries, have forced upon me involuntarily. Mortifying to my aspirations as the acknowledgment may be, a brief sketch of the precursory steps taken to accomplish our "Ethnographic Tableau," such as it is, will be the best comment upon its difficulties of realization.

It was my conception, when setting out for Europe, with the object of gathering materials for the present volume, to prepare a *Map* of the world, colored somewhat upon the plan of Prof. Agassiz's suggestion,[581] in size of about four folio sheets; containing the most exact colored *portraits* of races procurable, drawn to an uniform scale, and each placed geographically *in situ*. Copiously supplied, beyond any others in this country, as is our Academy of Natural Sciences with works upon every department of Natural History, and among them many containing excellent human iconographic specimens, they were wholly inadequate to the execution of my

[581] *Types of Mankind*, p. lxxviii, and Map.

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plan: but I supposed that European libraries might easily make up the deficiency. Procuring a large skeleton chart, and coloring it into zoological realms and faunæ, I made a preliminary list of about 150 human families whose likenesses were desirable. Their names, written on differently-colored pieces of paper, an inch square, were then pasted upon this map, each one in its geographical locality, to stand as mnemonics for the portraits to be afterwards inserted. Through the politeness of the late M. Ducos, Minister for Naval Affairs, the choice library of the Ministère de la Marine, together with the vast repository of the Dépot de la Marine, were freely opened to my visits; and here, BAJOT[582] in hand, my bibliographical explorations commenced. The *Bibliothèques Impériale, de l'Institut,* and *du Jardin des Plantes*, were equally accessible through the kindness of friends, during eight months' stay at Paris; and, for eight months subsequently, I resumed my old seat in that paradise of a bibliophilos, owing to the incomparable facilities readers obtain there, the *British Museum Library*. Altogether I worked in the midst of such resources for about twelve months of time, — always aided, when necessary, by my Wife's enthusiastic help — guided throughout by considerate indices from distinguished savans; during which period thousands of volumes were subjected to scrutiny, hundreds yielding materials either for my wife's pencil or my own note-books. In fact, no literary means were lacking for the attainment of my object; no efforts spared towards realizing it. Having, in consequence, acquired practical knowledge of the probable range of ethnographic materials accumulated at the present day, I can now speak of their deficiencies with more confidence. Alas! they are great indeed!

It was not long, however, before my casting about, at Paris, ended in the renunciation of an ethnographic map of the nature above sketched; owing to the frequency of *lacunæ*, impossible to be filled up, in the pictorial gradations of humanity spread over the earth. Inaccurate designs of many races, false colorations of most, unauthentic exceptions to exactness throughout the remainder, reduced the number of reliable portraits to a very small number in published works. To the ethnographer some otherwise valuable books, perfect as to *costumes* of nations, are wholly unavailable[583] as regards facial

[582] *Catalogue particulier des Livres de Géographie et de Voyages qui se trouvent dans les Bibliothèques du Department de la Marine et des Colonies;* Paris, Imprimérie Royale, 8vo, 1840; vol. III.

[583] Such, for instance, as *Georgi's Beschreibung aller Nationum des Russichen Reichs*, St. Petersburg, 1776; also republished in smaller edition at Leipzig, 1783; and in four vols. London, without plates, 1780: — RECKBERG, *Les Peuples de la Russie*, &c., with 94 plates

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iconography, — the Artists, naturally ignorant of physiognomical diversity beyond the small circle of races within their personal cognizances, having given *European* features to every variety of man; so that, according to each designer's country, all nations are made to assume *French*, *English*, or *German* faces; often with as little regard to foreign human nature as we find in Tailors' or Modistes' show-plates of the newest fashions! Some of the best descriptive works contain plates too small for reliance; in general uncolored, or else tinted without regard to exactness; at the same time that of whole families of mankind there are no representations whatever. It is, in fact, rare to meet with colored plates of races worthy of confidence, before the beginning of this century: not that I would disparage the efforts made by Cook, La Pérouse, Krusenstern, and other voyagers, to furnish good copper-plates of several distant tribes of men met with in their daring circumnavigations.

But the man essentially imbued with a sort of instinctive presentiment of the importance of human iconography, and to whose single pencil we still owe more varied representations of mankind over the earth than to any individual before or since, without question was CHORIS.[584] Chosen artist to the second Russian voyage round the world under Ottoe von Kotzebue in the "Rurick"[585] — 1815–18 — favored by a liberal and scientific commander, and aided by a skilful naturalist, Adelbert de Chamisso, Choris really availed himself of glorious opportunities (so frequently deemed unimportant in later maritime expeditions, — compared to the triumphant collection of "new species" among oysters, butterflies, or parsleys), and may be rightfully styled the father of those ethnological portrait-painters who, like Lesueur, have so skilfully illustrated the voyages of Péron (under Baudin) Duperrey, De Freycinet, D'Urville, Gaimard, and others. It is to Choris's, more than to any other man's labors, that the works of Prichard, and Cuvier, as the learned copyists frequently point out, owe their iconographic interest: and here it may be conveniently stated that, in our Tableau, I have endeavored, as far as possible, to

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of costumes. Many other works, equally defective ethnographically, if excellent for national costumes, are in the "King's Library," British Museum. Even some works of the great French Navigators — such as D'ENTRECASTRAUX, 1800; DE BOUGAINVILLE, 1837; LAPLACE, 1835; DU PETIT THUARS, 1841 — are almost valueless to human iconography, however meritorious and important in descriptions, and precious in other branches of natural history.

584 *Voyage Pittoresque autour du Monde, avec des Portraits de Sauvages d'Amérique, d'Asie, d'Afrique, et des Iles du Grand Ocean;* Paris, Didot, folio, 1822. Of this work I have used four copies at different libraries, two of them uncolored; and, as regards the coloration of the other two, one varied materially from the other in tints.

585 *Voyage of discovery into the South Sea,* &c., transl. Lloyd, London, 3 vols. 8vo, 1821.

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avoid repeating likenesses published by either authority, except when none so good were accessible elsewhere. Even then, in most cases, my copies are taken from, or have been compared with the original engravings, as the reference under each head indicates.

Compelled to relinquish, owing to absence of sufficient materials, my first idea of an ethnographic map, the next best substitute was suggested by J. Achille Compte's folio sheet;[586] which, considering that it is now twenty-five years old, was the ablest condensation of its day. Its errors have been indicated by Jacquinot; and, besides it gives undue preponderance to Oceanic types when other parts of the world possess equal claims for representation. "One sees a black of Vanikoro drawn as the type of the Polynesian brown race; below it, another native of Vanikoro represents the Malay branch. Natives of New-Ireland serve at one and the same time for the type of the Polynesian race and for the black Oceanic race!"[587] Without copying any of the heads published by so good an authority, I have in part availed myself of Compte's columnar arrangement and nomenclature, in the third letter-press column of our *Tableau*.

Among the various desiderata towards exactness in ethnic iconography, rank two necessities:—1st, that the same portrait should at least be photographed both in *front view* and *profile;* 2d, that these photographs should not be restricted to the *male* sex, but that their females should always accompany them; inasmuch as, from the rape of the Sabines down to Captain Bligh's mutineers,—among Turks universally, as well as in instances of American nations cited by McCulloh[588]—the *women* of a given nation often differ totally in type from their masculine possessors. Of this last contingency there exist countless instances, met with even in our own every-day experiences. The advantage of adding a *back view* of each individual has been shown by Debret;[589] and it is the rule followed, where possible, by M. Rousseau.[590] One universal savant,[591] and one equally-universal comparative anatomist,[592] feel the importance of the first requirement.

[586] *Races Humaines, distribuées en un Tableau Méthodique*, "adopté par le Conseil royal de l'Instruction Publique;" Paris, 1840:—being Pl. I. of his *Règne Animal*, 1832.

[587] JACQUINOT, *Études sur l'Histoire Naturelle de l'Homme;* Thèse pour le Doctorat en Médicine, Paris, 4to., 1848; p. 117.

[588] *Researches, Philosophical and Antiquarian, concerning the Aboriginal History of America*, Baltimore, 8vo., 1829; pp. 34–5, &c. See a spirited sketch of the rape of a white woman, by "Pehuenches," in PŒPPIG'S *Reise in Chili*, &c., Atlas fol., 1835, Pl. 7.

[589] *Voyage Pittoresque au Brésil*, ii. pp. 114–5, Pl. xii.

[590] At the Jardin des Plantes; as in several photographs of Hottentots, &c., I owe to his complaisance.

[591] ALFRED MAURY, *Questions relatives à l'Ethnologie ancienne de la France*—Extrait de l'Annuaire de la Soc. Imp. des Antiquaires de France pour 1852—Paris, 18mo., 1853; pp. 9–10.

[592] STRAUS-DURCKHEIM, *Théologie de la Nature*, Paris, 8vo., 1852; III, note xxx, *Races humaines;* pp. 318–9, 324.

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The former presses French antiquaries with the following language —"In the portraits that we demand from our correspondents, they should adhere both to giving front views, so as to enable the physiognomy to be judged; and profile, in order to show the direction of the lines of the face, the disposal of the forehead, the facial angle, the degree of hollowness of the eye in relation to the 'arcade sourcilière,' the prominence of the chin. It is certain that these details of the countenance, in appearance insignificant, exert a great influence upon the *ensemble* of the features. By way of example, we would instigate remark that the cavity at the root of the nose, in relatiou to the slope of the forehead, is of itself a characteristic that distinguishes certain races from others. The Greeks, to judge by the statues they have left us, did not represent this cavity; so pronounced, on the contrary, in sundry of our own provinces. Some physiologists have attributed this character to mixture with the Germanic race, in which it is observed in considerably high degree. There are lines, even some simple wrinkles, that stamp a given physiognomy with its national impress. The Shlavic race notably distinguishes itself, ordinarily, among men more than thirty years old, by a furrow which cuts the whole cheek in a quasi-vertical sense."

The subjoined authority stands so high among comparative anatomists, that its weight, in support of the polygenistic view, deserves attention. Straus-Durckheim says: "In treating this subject [*Human Races*], as it ought to be, simply as a question of pure zoology, and upon applying to it the same principles as to the determination of other species of animals belonging to one genus, one arrives, in fact, at really recognizing many very distinct human species, of which the number cannot yet be fixed; on one account, because the interior of the continents of Africa, Australia, and even of America, is not sufficiently known; and on another, that we do not possess even sufficient data about the distinctive characters of a large number already known.

"We are acquainted indeed with a few races, such as the Caucasian and the Negro; but many others are very poorly indicated, even by Ethnographers, to such a degree that everything remains still to be done.

"The greater number of travellers who, until now, have gone over distant countries in which exist races of men more or less distinct, have indeed brought back some drawings; and, in these later times, even busts moulded upon nature; but more frequently they have confined themselves to giving the portraits of the Chiefs about whom they spoke in relating their voyages; or else, they have represented a few common individuals, some taken at random, and the others on account of whatever may have been extraordinary in their physiognomy; whereas it is precisely the portraits of those who present the most vulgar [or normal] faces and forms among each people which it is essential to make known; their features offering, through this very circumstance, the true characteristics of their races, inasmuch as best resembling the greater number of individuals. * * * "Now, these various

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directions of the divers parts of the head, which it would be so important to know well in order to determine the differences that exist between human species, cannot be thoroughly indicated except in portraits done exactly in profile; in the same manner that the exact proportions of width cannot be properly given save through portraits in full front view; and this is precisely that which one does not find but very exceptionally in ethnographic works, in which heads are generally represented at three-quarter view; with the intention of making known at one and the same time the proportions of all parts, whereas through such arrangement they satisfy nothing; the three-quarters not permitting any proportion to be exactly caught, every feature becoming foreshortened to the beholder."

With full consciousness of these requirements, I had hoped that, through the multitude of works consulted, some kind of uniformity, as regards front and profile views of the same head, might have been achieved for a certain number of races. Here again disappointment was the issue. Aside from Dumoutier's *Anthropologie* wherein chiefly Oceanic busts are thus figured, there are not a dozen instances[593] where pains have been taken to supply this radical necessity in ethnology. There are not, out of these, more than half the number *colored;* nor, finally, as illustrative of the poverty of ethnographical resources, out of a collection of some 400 heads of races procured, was it possible, on reducing the number even to 54 specimens, to avoid including some faces (such as Nos. 11, 13, 20, 30, 34, &c.) drawn at three-quarters, under the penalty of either a blank in the series or of filling the place with a less characteristic sample. And yet, with an intrepidity which ignorance of these simple facts may explain, but can never justify, whole volumes have been written to prove "the unity of the human *species*,"—when science does not possess half the requisite materials for ethnographic comparisons, and at the very day that the best naturalists will frankly and honestly tell you how, *the historical evidences* (only scientific criteria) *of permaneney of type* being excluded, they feel rather uncertain where "species" is to be found in any department of zoology. Polygenism no less than monogenism, as regards humanity's origination, depends, therefore, like all similar zoological questions, upon *history*—itself a science essentially human. The whole controversy concerning the unity or the diversity of mankind's "species" is consequently bounded by a circle, of which, after all, human *history* can but vaguely indicate the circumference; and the only ultimate result obtained from the analysis of such arguments resolves itself, as in all circular arguments, into a question of *probabilities*. The brothers Humboldt (ubi supra) reject, as ante-historical, all *myths*, *fiction*, and *tradition*, that pretend to explain the origin of mankind. Perfectly coinciding with these

[593] My portfolio embraces them all, I believe, from the publications of Cuvier, Péron, D'Orbigny, D'Avezac, De Middendorf, Siebold, and two or three others.

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luminaries of our XIXth century in such repudiation of the only criterion of "species" which real *history* is powerless to elucidate, belief and unbelief, as to polygenism or monogenism, seem to me equally speculative, equally abortive, in a matter utterly beyond the research of human *history*,—as this term is understood during the present solar revolution, ecclesiastically styled A. D. 1857.

I roughly estimate the amount of iconographic stock, available to ethnology and contained in published works, at about 600 portraits. Of these not more than half are colored, many of them not reliably; whilst a large proportion of those uncolored are more or less defective. In this estimate, European nations of the three types,—Teutonic, Celtic and Sclavonic—are of course excluded; because biographical, historical and other publications, aside from portrait-galleries, furnish abundance to illustrate these the most civilized races of the world. Some American, portions of African, perhaps all the Australian, the greater number of Polynesian, certain Malayan, Indo-Chinese, Chinese, Japanese, &c., are well represented; but vast iconographic blanks in the varied nationalities of Asia and Africa still remain among "terræ incognitæ," ethnologically speaking far more than even geographically. For instance, where has there been published a reliable colored portrait of a *Yukagir?* where that of a true *Berber?*[594] Central Arabian tribes have no authentic representative, save in the likeness of *Âbd-Allah ebn Souhood*, the Wah'abee;[595] and so on of whole nations in other regions. Indeed, by way of testing the accuracy of this statement, let the reader take the *third* column of our "Tableau," wherein an attempt has been made, chiefly through descriptions, to group mankind physiologically. Sixty-five distinguishable families, out of perhaps hundreds unmentioned, are there enumerated. Let him only try to find for each of these a *reliable colored portrait*, suitable to ethnology (Hamilton Smith, Prichard and Latham, inclusive), —his first difficulty will be to settle the difference iconographically between a "Lapp" and a "Finn." I have failed in my efforts to obtain one of the former; of the latter (No. 7) I am by no means certain.[596]

According to modern statisticians, the population of the world is calculated to exceed 1200 millions. About 600, more or less available, ethnological portraits are the limit of my estimate of public icono-

[594] Those (about 40, I think) procured by the *Exploration scientifique en Algérie* are inedited. Very beautiful they are, in the Parisian Galerie Anthropologique. It will be noted that I use the terms "*reliable colored portraits*" accessible through publications. The treasures contained in private portfolios do not, of course, enter into this category, being inaccessible.

[595] MENGIN, *Op. cit.* (supra, note 576).

[596] See what Dr. Meigs says (Chap. III, pp. 267–70, *ante*).

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graphical property, bearing upon types of man — Europeans hardly included — now in existence. This enables ethnography at the present advanced day to boast, that she possesses about *half an individual* per million to represent all Mankind! whereas, out of 216 known species of *Monkeys*, there are not a dozen of which naturalists do not possess exact and elegant delineations. And yet, steeped in the slough of our common ignorance, it is pretended to give us *systems* vindicating the "unity of the human *species*."

Under all these lamentable deficiencies, my attempt reduces itself to an exhibition of 54 of the best characterized ethnographic portraits condensible into a "Tableau." Their number (*fifty-four*) is purely accidental. No cabalistic enigma underlies its selection, which was superinduced merely by the mechanical eligibilities considered requisite by our publishers. What may have been the labor incurred to present even so small a number at one view, may be inferred through the *Table of References*. Such as it is, the reader will find nothing yet published comparable to it for attempted accuracy; at the same time that none can be more alive than myself to its defects, nor will be more happy to hail the publication of something better within the limited price of this present volume. Had not this last inexorable condition been part of our publishing arrangements, my own portfolio and note-books could have supplied for every row (except for the *Australian* realm, which seems tolerably complete in 6 specimens) 18 different heads, each typical of a race, in lieu of only 6; and then, through 132 *colored portraits*, a commencement might have been made to portray, at one view, the earth's known inhabitants; leaving to future collectors the task of adding other types, in the ratio either of their discovery or of their acquisition, to ethnic iconography. With these remarks, the "Tableau" is submitted to liberal criticism; which will perceive the reason why so many essential and well-known types are unavoidably excluded, in the fact that 132 distinct things cannot be compressed into a space adapted to 54.

A FEW CLOSING OBSERVATIONS.

Notwithstanding that perfectly-traced fac-similes, and sometimes the original plates and photographs themselves, were placed in the hands of the best lithographic establishment in this city, rigid comparison with a few of the originals referred to in the explanatory text, will prove what has been previously deplored regarding ethnological portraits generally, viz., that a merely artistic eye, untrained in this new "spécialité" of art, is unable even to *copy* with absolute correctness. A draughtsman, accustomed to draw solely *European*

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faces, cannot, without long practice and a peculiar instinct for race-iconography, seize, on so small a scale as such drawings must be made, the delicate distinctions between ethnic lineaments perceived by the eye of an anthropologist. In consequence, it has happened in our *Tableau*, that, through infinitesimal touches of his pencil, there are few heads (in the *eyes* especially) which have not been more or less *Europeanized* by the artist. These defects are herein irremediable; nor would I call attention to them, but to meet a possible (nay, very probable) charge, that these portraits have been tampered with in order to favor Dr. Nott's and my common polygenistic views: whereas, on the contrary, the truth is, that artistic execution, by softening down diversities of feature, palpable in the originals, seems unconsciously to have labored rather to gratify the yearnings and *bonhomie* of philanthropists and monogenists.

In respect to the *coloring*, also, although to each face I have appended authority for its hue, much allowance should be made for a book the price of which, to the American subscriber, must not exceed $5. The colorist (who has performed her part extremely well) had to give 53 distinct tints to 54 (the *Tasmanians*, Nos. 53, 54, being one color) different faces,—each, too, restricted to one stroke of her brush. To have attempted the coloration of *eyes*, *hair*, or *dress*, would have made this volume cost half as much again. Nevertheless, I have deposited with our publishers one standard and completely-colored copy, critically executed by my wife, and they tell me that any one desirous of possessing our "Ethnographic Tableau," perfectly *colored*, *varnished*, and *mounted upon rollers*, can obtain such copy on application to them, and paying the expense thereof.

As for the wood-cuts,—in our present, no less than in our former volume—I am free to say, that the only extenuation, for often-stupid deviations from perfectly-drawn originals, lies simply in the fact, that where (owing to bibliothecal deficiencies in a given spot of our yet new and youthful American republic) the *plates* themselves could not be furnished to the engraver, my wife's pencil-marks on the box-wood "blocks" having been rubbed more or less in our travels,—or, by carelessness, after their delivery to the wood-cutter —"pencils," under such circumstances, are treacherous and slippery. Hence our collaborators, Messrs. Pulszky and Meigs, I am sure, will be charitable enough to overlook any accidental drawbacks to the attainment of that correctness, which was equally desired by Mrs. Gliddon, Dr. Nott, and myself. The reader will also, I trust, be so considerate as to overlook such blemishes in the artistic, cranioscopic, and typograpical exactitude of our book.

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ON THE

ETHNOGRAPHIC TABLEAU,

EXHIBITING

SPECIMENS OF **VARIOUS RACES** OF MANKIND.

ADOPTING entirely, for my own part, Prof. Agassiz's zoological distribution of animals into *REALMS*,—subdivided into *Faunæ*—I had prepared prefatory observations on each of the former, which lack of space now obliges me to reduce to a minimum consistent with perspicacity.

So many have been the mistakes committed (even by good scholars), as regards the honored Professor's meaning, in the terms "Realms" and "Faunæ,"[597] that the reader's attention is again especially invited to the "Sketch of the Natural Provinces of the Animal World, and their relation to the different Types of Man;" which, with its *tableau* and *map*, forms a prominent feature in Nott's and my *Types of Mankind.*

It is upon such inferred knowledge, on the reader's part, that our "Ethnographic Tableau" has been projected. The first column of letter-press contains PROF. AGASSIZ'S "Geographical distribution:"—the second DR. MEIGS'S "Cranioscopic examples:"—the third my

[597] 1. A. D'ABBADIE (*Observations sur l'Ouvrage intitulé: Types of Mankind, par MM. Nott and Gliddon — Bulletin de la Soc. de Géographie*, No. 55, Juillet, Paris, 1855, p. 41)—"M. Agassiz admet huit types humains primitifs." Refuted by M. A. MAURY, in the same Journal (pp. 46–51). 2. HEYWOOD (translation of VON BOHLEN'S *Introd. to the Book of Genesis*, London, 8vo, 1855; II, appendix 2, p. 278)—"Hottentot realm;" instead of *fauna*. 3. A writer (*Charleston Medical Journal*, 1855—"An Examination of Prof. Agassiz's Sketch," &c.) confounds *realms* with *faunæ* in a manner that shows he does not even comprehend terminology [*e. g.*, "Mongolian realm" (p. 36)—"Prof. A. has formed two realms in Africa;" "Hottentot realm" (p. 37]: but inasmuch as this would-be naturalist duly received a *quietus* at the hands of LUKE BURKE (*Charleston Med. Journ.*, July, 1856, Art. I), he may remain dropped where he was long ago, by Morton and by myself (*Types of Mankind*, pp. lvi and 628, note 210). 4. CULL (*Address to the Ethnological Society of London*, 1854, p. 8)—"5. The Negro realm. 6. The Hottentot realm." No such classes occur in Prof. Agassiz's paper. 5. Anon. (*Westminster Review*, No. XVIII, April, 1856; Art. III, p. 364)—"*eight realms*, * * * Hottentot," as one of them, in lieu of *fauna*. 6. Anon. (London *Athenæum*, June 17, 1854, Review)—[Prof. Agassiz] "divides mankind into eight types, each of which has its realm, with its peculiar animal inhabitants. They are as follows:—1. Arctic;—2. Mongol;—3. European;—4. American;—5. African;—6. *Hottentot;*—7. Malayan;—8. Australian," &c.

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individual conception of "Mankind, grouped physiologically:"—and the fourth a synopsis, by myself, of the "Linguistic distinctions" deducible from M. ALFRED MAURY's Chapter I, in the present volume.

I proceed to succinct remarks on the "Realms" themselves; following each by specification of the sources whence each human portrait has been derived. Precision is the only goal attempted to be reached by this tinted-Tableau's compiler: and the primary *fact* that will be acquired by its inspector, at first glance, will be the destruction of any hypotheses he may have formed concerning the alleged action of solar influence (as per Latitude and Longitude) upon Nature's aboriginal coloration of the human skin [any greater than upon that of the *simiæ*—see Monkey-chart] among her "types" and "races" of the *genus Homo*.

I.

ARCTIC REALM.

(Nos. 1, 2, 3, 4, 5, 6.)

The newest—and by far the best—definitions known to me of the several characteristics of the human inhabitants of the Hyperborean zone, being already supplied by our collaborator Dr. Meigs (*supra*, Chapter III, pp. 156, 168), I will not detract from the merit of this first utterance of special studies on the Polar region, which he has been prosecuting for some time by doing more than inviting re-perusal of his remarks; coupled with reference to that excellent little compendium—"Productions of 'Zones,' illustrated and described" (10 Plates and 10 pamphlets, 18mo—published by Myers & Co., London, 1854).

REFERENCES AND EXPLANATIONS.

No. 1.—ESKIMO.

["*Takkeelikkeeta*, Eskimaux of Igloolik:"—PARRY, *2d Voyage*, "Fury and Hecla;" London, 1824, p. 391.]

Colored from Ross, *Voy. Baffin's Bay*—"Arctic Highlander—*Ervick*, Native of Prince Regent's Bay."

Compare MARTIN, *Nat. Hist. of Man and Monkeys*, London, 1841, p. 278, fig. 213.

No. 2.—TCHUTKTCHI.

[*Inedited*,—from my friend MR. EDWARD M. KERN, artist in the recent Voyage of the U. S. Corvette "Vincennes," Capt. Rodgers, to the North Pacific, 1853-6. See the remarks of Dr. Meigs (*supra*, Chapter III) on Fig. 12.]

Compare DESMOULINS, *Races Humaines*, 1826; Pl. I, from CHORIS:—HOOPER (*Tents of the Tuski*, London, 8vo, 1853) gives plates too small for reliance; but observes, "Tchouski, Tchuktche, Tchutski, Tchekto, and similar appellations, I believe to have arisen from the word *Tuski*, meaning a confederation or brotherhood." He divides them into "the Reindeer Tuski," and "the fishing, or alien Tuski"—"two distinct races, or, at least, branches, * * * differing in language, appearance, and many details of dress and occupation (p. 34)."

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No. 3. — KORIAK.

["Inhabitants of Kotzebue Sound:"— DE KOTZEBUE, *Voy. of Discovery, N. E. Passage*, in Russian S. "Rurick," 1815–18; transl. Lloyd, London, 1821; I, Pl. 1.]

Compare BEECHEY (*Voyage to the Northern Ocean and Beering's Strait*, London, 4to, 1831, I, p. 250 seq., II, pp. 567–76), who, in describing the Esquimaux, eastern and western, says, "both people being descended from the same stock."

No. 4. — ALÉOUTIAN.

["Habitant des Iles Aléoutiennes:"—CHORIS, *Voyage Pittoresque autour du Monde* (1815–18); Paris, fol., 1822, Pl. III, 6me livraison.]

Compare "a man of Kadiak" (Pl. VI, in MARTIN SAURR'S *Account of a Geog. and Astronom. Exped. to the Northern Parts of Russia*, by Comm: J. Billings, 1785–94; London, 4to, 1802.)

No. 5. — AÏNO.

["Naturel de la côte septentrionale de Jesso:"—DE KRUSENSTERN, *Voyage autour du Monde*, 1803–6, in the Russian S. "Nadiejeda and Neva" — transl. Eyriès, Paris, 1821; Atlas 4to, Pl. XV, 1: collated with Pl. LXXIX, of the Russian folio original, St. Petersburg, 1813.]

Colored, "teint brun verdâtre foncé," according to DESMOULINS (*op. cit.*, pp. 165, 286). DE KRUSENSTERN (II, pp. 89–90, 98–9) considers the hairiness of these *Aïnos* to have been exaggerated, and says *their color* is "*teint brun foncé et presque noir.*" Upon showing our colored head, No. 5, to my friend Lieut. Habersham, he tells me that it does very well. Already (*vide supra*, "Prefatory Remarks"), I have been enabled, through his kindness and zeal for science, to present a wood-cut exhibiting the true characteristics of a race so little known as these *Aïnos*. Here is Lieut. Habersham's description: —

"The hairy endowments of these people are by no means so extensive as some early writers lead one to suppose. As a general rule, they shave the front of the head *à la* Japanese, and though the remaining hair is undoubtedly very thick and coarse, yet it is also very straight, and owes its bushy appearance to the simple fact of constant scratching and seldom combing. This remaining hair they part in the middle, and allow to grow within an inch of the shoulder. The prevailing hue is black, but it often possesses a brownish cast, and these exceptions cannot be owing to the sun, as it is but reasonable to suppose that they suffer a like exposure from infancy up. Like the hair, their beard is bushy, and from the same causes. It is generally black, but often brownish, and seldom exceeds five or six inches in length. I only saw one case where it reached more than half-way to the waist; and here the owner was evidently proud of its great length, as he had it twisted into innumerable small ringlets, well greased, and kept in something like order. His *hair*, however, was as bushy as that of any other. As this individual was evidently the most "hairy Kurile" of the party, we selected him as the one most likely to substantiate the assertion of Broughton in regard to "their bodies being almost universally covered with long, black hair." He readily bared his arms and shoulders for inspection, and (if I except a tuft of hair on each shoulder-blade, of the size of one's hand) we found his body to be no more hairy than that of several of our own men. The existence of those two tufts of hair caused us to examine several others, which examinations established his as an isolated case.

"Their beard, which grows well up under the rather retreating eye, their bushy brows, and generally wild appearance and expression of countenance, give them a most savage look, singularly at variance with their mild, almost cringing, manners. When drinking, they have a habit of lifting the hanging mustache over the nose, and it was this practice, I suppose, which caused an early writer to say, "their beards are so long as to require lifting up." Though undoubtedly below the middle height as a general rule, I still saw several who would be

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called quite large men in any country; and, though the average height be not more than "five feet two or four inches," they make up the difference in an abundance of muscle. They are a well-formed race, with the usual powers of endurance accorded to savages, indicated in their expansive chests and swelling muscles. Their features partake more of the European cast than any other. They are generally regular, some even noble, while all are devoid of that expression of treacherous cunning which stands out in such bold relief from the faces of their masters—the Japanese and Northern Chinese. I cannot but agree with La Perouse as to their superiority over those nations. * * *

"The Aïnos are unpleasantly remarkable as a people in two respects,—viz.: the primitive nature of their costume, and their extreme filthiness of person. I doubt if an Ainu *ever* washes; hence the existence of vermin in everything that pertains to them, as well as a great variety of cutaneous diseases, for which they appear to have few or no remedies. There is another side to the picture, however, and it is a bright one. Their moral and social qualities, as exhibited both in their intercourse with each other and with strangers, are beautiful to behold. * * *

"I cannot account for Broughton's assertion in regard to their being of "a light copper-color," unless he referred to a few isolated cases. As I have previously remarked, we saw several hundred men, women, and children, and these were all of a *dark brownish-black*, with one exception; which exception was a male adult, strongly suspected of being a half-breed." (*Op. cit.*, pp. 311–14.)

No. 6. — SAMOYEDE.

[" *Gowrila*, Kándin-Samojeden :"—De Middendorf, *Die Samojeden in St. Petersburg*, Pl. XIV. (Vide *Bulletin de la Soc. Ethnologique de Paris*, 1847, I, pp. 259, 295–7, 300–7; and *St. Petersburg Zeitung*, 1847, Nos. 77, 78.]

Colored from Prince Demidoff's collection in the *Galerie Anthropologique*, Jardin des Plantes, Paris, 1855.

Compare Desmoulins, *op. cit.*, pp. 261–6:—Latham, *Native Races of the Russian Empire*, London, 1854, pp. 112–21:—Max-Müller, *Languages of the Seat of War*, London, 1855; 2d ed., pp. 118–23.

II.

ASIATIC REALM.

(Nos. 7, 8, 9, 10, 11, 12.)

"Asia Polyglotta" (Klaproth, *Sprach Atlas*, Paris, fol., 1823; and Atlas of his *Tableaux historiques de l'Asie*, Paris, fol., 1826;—with their perspicuous maps of Asia at different periods, for all sources—)" seems likely to become "Asia Polygenea," whenever anthropology shall possess, about her multiform human occupants, either the accurate data now acquired for elucidating the *Egyptians*, the *Arabs*, the *Hebrews*, the *Berbers*, and the *Chinese*, —or the precise knowledge gained in her inferior departments of zoology. Almost everything known about *Asiatic* ethnography is contained within the present and our former work, taking in view the references accompanying any statement in both.

REFERENCES AND EXPLANATIONS.

No. 7.—KAMTSCHADALE.

[Prichard, *Natural Hist. of Man*, London, 1855; ed. Norris; i. p. 224, Pl. ix.—from Choris.]

On these I have nothing to add to Dr. Meigs's remarks in Chapter III.

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No. 8. — St. LAURENT-ISLANDER.

[CHORIS, *op. cit.*, liv. 7e., Pl. xvi.; from Behring's Straits, American side.]

VON LANGSDORFF (*Voy. and Travels*, London, 4to. 1813, II, pp. 31, 111–12) Doctor to Kotzebue, says of the Oonalaskans, "a sort of middle race between the Mongol-Tartars and the North Americans"—and of the Koluschians, "they do not appear to have the least affinity with the Mongol race:" — skin, when clean, nearly fair.

No. 9. — TARTAR.

["Chef Tartare:"—DE KRUSENSTERN, *op. cit.*, Pl. xvii.;—corrected by Russian original, Tab. lxxxii.]

Colored by descriptions of the ancient "On-Sioun," "Ting-Lings," &c., according to Chinese historians cited by KLAPROTH (*Tableaux hist. de l'Asie*, pp. 123–5, 162, &c.)

Compare DESMOULINS, *op. cit.*, pp. 74–5, 80, 87, 163;—and other authorities in JARDOT (*Revolutions des Peuples de l'Asie Moyenne*, Paris, 1839; ii.), "Tableau synoptique, chronologique et par Race." DE KRUSENSTERN (transl. Eyriès, 1821, ii. pp. 208–11, 222–6), at the peninsula of Sakhalin (Map, Pl. 28), coast of Tartary — narrates how the Tartars, of whom the above is a chief, had driven out and extirpated the "aborigines, or Aïnos," and were a totally distinct race.

For Tartar ethnography around the Black Sea, consult HOMMAIRE DE HELL (*Les Steppes de la mer Caspienne*, Paris, 3 vols., 1845) *passim*.

No. 10. — CHINESE.

["Un Chinois"—BARROW, *Voyage en Chine* (with Macartney), transl. Castera, Paris, 1805; Atlas, 4to., Pl. iv.; and i. pp. 77–82.]

There are many forms of Chinamen, on which I have no space to enlarge; but this is a good normal type.

No. 11. — KALMUK.

[Derivation uncertain.]

Colored from HAMILTON SMITH, *Nat. Hist. of the Human Species*, Edinburgh, 1848; "Swarthy Kalmucks, Eleuth," Pl. 28, p. 462.

Compare MARTIN, *op. cit.*, pp. 271–3, fig. 207:—CUVIER, Atlas, *Mammifères*.

The best descriptions are in a work by an anonymous but very correct compiler (*Voyages chez le Peuples Kalmoucks et les Tartares*, avec 23 figures et 2 cartes géographiques, Berne, 1792, 8vo., — p. 169 in particular). After indicating the clear distinctions, in types and tongues, between the various races of Caspian Asia, he quotes LA MOTRAYE's surprise, "d'avoir trouvé, presque sous le même climat, et dans le même air, les *Circassiens*, le plus beau peuple du monde, au milieu des *Noghaiens* et des *Kalmoucks*, qui sont de vrais monstres de laideur."

No. 12. — TUDA.

["A man of the Tuda race;" Nilagiri Hills,—Museum Royal Asiatic Society: PRICHARD, *Researches into the Physical History of Mankind:* — and *Nat. Hist. of Man*, 1855, Pl. xi. p. 353–4.]

On all these Dravidian tribes, see Maury's Chap. I., pp. 52–5; and my Chapter V., pp. 612–13. The best descriptions are in *Sketch of Assam* (supra, note 345 514); but the colored portraits are too small.

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III.

EUROPEAN REALM.

(Nos. 13, 14, 15, 16, 17, 18,—19, 20, 21, 22, 23, 24.)

The profound author of "Civil Liberty and Self Government"—ablest exponent of human rights as understood in our XIXth century by Anglo-Saxons—has expressed the embarrassments of nomenclature in the following note:—

"I ask permission to draw the attention of the scholar to a subject which appears to me important. I have used the term Western History, yet it is so indistinct that I must explain what is meant by it. It ought not to be so. I mean by western history, the history of all historically active, non-Asiatic nations and tribes—the history of the Europeans and their descendants in other parts of the world. In the grouping and division of comprehensive subjects, clearness depends in a great measure upon the distinctness of well-chosen terms. Many students of civilization have probably felt with me the desirableness of a concise term, which should comprehend within the bounds of one word, capable of furnishing us with an acceptable adjective, the whole of the western Caucasian portion of mankind—the Europeans and all their descendants in whatever part of the world, in America, Australia, Africa, India, the Indian Archipelago and the Pacific Islands. It is an idea which constantly recurs, and makes the necessity of a proper and brief term daily felt. Bacon said that "the wise question is half the science," and may we not add that a wise division and apt terminology is its completion? In my private papers I use the term Occidental, in a sufficiently natural contradistinction to Oriental. But Occidental, like Western, indicates geographical position; nor did I feel otherwise authorized to use it here. Europides, would not be readily accepted either. Japhethian would comprehend more tribes than we wish to designate. That some term or other must soon be adopted seems to me clear, and I am ready to accept any expressive name formed in the spirit and according to the taste of our language. The chemist and natural historian are not the only ones that stand in need of distinct names for their subjects, but they are less exacting than scholars."—*Op. cit.*, Philadelphia, 8vo., 1853, i. pp. 30–1.

Soon after the issue of "Types of Mankind," a pleasant rencontre here with Prof. Francis Lieber led to conversation between us, wherein it was remarked, that the name of a mythic *daughter* of an ante-historic king of Phœnicia (Agenor),—transported by Jupiter in the form of a natatory milk-white bull to the Isle of Candia—which, as EUROPA, had not yet become applied geographioally to "Europe" in the times of Homer, should have given birth to an adjective—"European"—that (like *Caucasian*, *Turanian*, &c., supra, note 460) now designates, as if they were an ethnic unit, types of man historically originating in three distinct Realms (Arctic, Asiatic, and European properly so-called), and races as essentially diverse from each other as the Faunæ of these Realms themselves: at the same time that, as Bochart (*Phaleg*, IV. 33) long ago perceived, such nations differ entirely from the men of a fourth Realm—"quia *Europæa* Africanos candore faciei multum superant."

Prof. Lieber was so good as to leave with me (13th July, 1854) a memorandum embodying the result of our conference:—

"P. S. I may add that I have thought of the following names, all of which seem poor to me—

Japhetians (includes too much);
Dysi-Caucasians (bad);
Hupero-Caucasians (poor);
Europa-Caucasians (poorer).

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"I really think *Europidians* is the least objectionable, although I own it would induce people, at first glance, to suppose that it includes the descendants of Europeans only, whereas the name ought to include *Europeans and all their descendants.* F. L."

Such are the difficulties. I do not propose to resolve them: but would inquire of fellow-ethnologists — inasmuch as we now know that, in primordial Europe, there once existed (prior to the tripartite Celtic, Indo-German, and Shlavic, immigrations), men whose silex-instruments lie entombed in French diluvial drift, men whose humatile vestiges are found in ossuaries and bone-caverns, men who in Anglia and in Scandinavia preceded the Kelt; just as there are still living, in modern Europe, their *Basque* and *Albanian*, amid other, successors—whether it might not be convenient to adopt Prof. Lieber's term "Europidians" (or, *Europidæ*), by way of distinguishing such primary human stratifications from the secondary, now comprised in the current word "Europeans"?

REFERENCES AND EXPLANATIONS.

No. 13. — FINN.

["Jannea Holm," Norway Laplander:—HAMILTON SMITH, *op. cit.*, Pl. XXX., p. 463; "The diminutive Laplander of Norway, similarly marked with *Finnic interunion*"—compare pp. 318-20.]

"'DAN *and* ANGUL, says the venerable historian Saxo-Grammaticus, *were brothers:*'"— that is to say, the Danes and the English descend from one ancestry. *Angelm*, whence the Angles came to *Anglia*, lies in Denmark proper; and the Jutes, Jutlanders, came over to England with the Saxons." (ELLESMERE, *op. cit.* (supra, note 532) p. 1:—Also, for "Norman names," consult *Mémoires de la Soc. R. des Antiquaries du Nord*, Copenhagen, 8vo., 1852.) [See p. 434, *ante.*]

"With regard to externals," says the translator of GEORGI (*Russia, or a complete Historical account of all the Nations which compose that empire*, London, 8vo., 1780, i. p. 37, 45), "the Finns differ nothing from the Laplanders"— being flat against the observations of Capell Brooks! But the separation of the Finns from the Laplanders is supposed to have taken place in the 13th century, after the forcible conversion of the former to Christianity. However, the very best work on all the Russian peoples is COUNT CHARLES DE REOHBERG'S (*Les Peuples de la Russie*, &c.—with 94 figures, Paris, 2 vols. fol.,—without date, but during the reign of Nicholas). He says (i. p. 6), "How many nations, how many religions, how many tongues, what varied customs in this immense State! Let its diverse habitants be compared, and what distances between their forms, their manner of living, their costumes, their tongues, their opinions! What a difference, for instance, betwixt the Livonian and the Kalmouk, betwixt the Russ and the Samoiede, betwixt the Finn and the Caucasian, betwixt the Aleutian and the Cossack! What divers degrees of civilization, from the Samoiede, who merely, so to say, vegetates in his smoky hut, to the affluent inhabitant of St. Petersburg or of Moscow, who expresses himself in the language of Voltaire almost equally to a Parisian!" He enumerates 99 races, grouped into five types. It must be from this work's suggestions that Prince Demidoff created that beautiful series of colored casts of Russian races now in the *Galerie Anthropologique.*

No. 14. — ICELANDER.

["Pétur Olaffsen. Pêcheur de Rékiavik:—GAIMARD, *Voy. en Islande et en Grœnlande*, Corvette "Recherche" (1835-6), Paris, 1840; fol. Atlas hist., I.]

Colored by descriptions. *Vide supra*, Chap. V., pp. 584-5.

No. 15. — BARON CUVIER.

[From lithograph of his portrait by MAURIN.]

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"GEORGE CUVIER, the first of all descriptive anatomists, and the scientific man who first, after Aristotle, applied the art of anatomy to general science, was born on the 23d of August, 1769, at Montbeliard, a small and originally a German town, but long since incorporated within the French territories. He was a native of Wirtemberg, a German in fact, and not a Frenchman in any sense of the term, saving a political one. The family came originally from a village of the Jura, bearing the same name, of Swiss origin therefore, and a native of the country which gave birth to Agassiz. In personal appearance he much resembled a Dane, or North German, to which race he really belonged. Cuvier theu was a German, a man of the German race, an adopted son of France, but not a Celtic man [nor a *Kelt*], not a Frenchman. In character he was in fact the antithesis of their race, and how he assorted and consorted with them it is difficult to say. Calm, systematic, a lover of the most perfect order, methodical beyond all men I have ever seen, collective and accumulative in a scientific point of view, his destinies called him to play a grand part in the midst of a non-accumulative race, a race with whom order is the exception, disorder the rule. But his place was in the Academy, into which neither demagogues nor priests can enter. Around him sat La Place, Arago, Gay-Lussac, Humboldt, Ampère, Lamarck, Geoffroy. This was his security, these his coadjutors, this the audience which Cuvier, the Saxon, and therefore the Protestant, habitually addressed. It was whilst conversing with him one day in his library, which opened into the Museum of Comparative Anatomy, a museum which he formed, that the full value of his position forced itself upon me. This was, I think, during the winter of 1821 or '22. A memoir had been discussed a day or two before at the Academy: I remarked to him that the views advocated in that memoir could not fail to be adopted by all unprejudiced men (*hommes sans préjugés*) in France. 'And how many men *sans préjugés* may there be in France?' was his reply.

"'There must,' I said, 'be many, there must be thousands.'

"'Reduce the number to forty, and you will be nearer the truth,' was the remarkable observation of my illustrious friend.

I mused and thought."—(R. KNOX, M. D., F. R. S. E., *Great Artists and Great Anatomists*, London, 12mo. 1852, pp. 18–19.

No. 16.—BULGARIAN.

["Famille Bulgare:"—GAIMARD (Commission Scientifique du Nord), *Voy. au Spitzburg, Laponie*, &c., (1838–40); *Atlas Pittor.*, 66me. liv.]

See excellent "Portraits-types Turcs et Grecs de la Roumélie," with others of Circassians, Kurds, &c., in HOMMAIRE DE HELL (*Voyage en Turquie et en Perse*, Paris, 1854, Atlas fol., *Pls.* viii., liii., xlviii.: and, for everything else here needful, D'OHSSON *Tableau général de l'Empire Ottoman*, Paris, fol., 1790–1820; II, pp. 136–7; Plates 63–74.)

No. 17.—GREEK.

["Palicar [guerilla], Îles de l'Archipel. Grec:—*Galerie Royale de Costumes*, Aubert & Cie., Paris, fol., Pl. 8.]

On this face, M. Pulszky comments, in a private letter to me, that this man is a *Sclavonian*. I agree with him; but such is the normal type of Moreots at the present day.

No. 18.—CAUCASIAN.

["Prince Kasbek (Ossétié):"—GAGARINE, *Costumes du Caucase*, Paris, fol. 1852.]

I mean, as the highest type of the "Men of Mt. Caucasus" (*supra*, Chap. V, note 460). I have no space to enlarge upon this mountain's multiform inhabitants.

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No. 19. — SYRIAN.

["Habitant de Bethléem (Palestine):"—*Galerie Royale de Costumes*, Pl. 2.]

A most characteristical type of people I know well.

No. 20. — ARAB.

["Azemi Arab, near Cossèyr:"—by PRISSE D'AVENNES, in *Madden's Oriental Album*, London, fol., 1846, Pl. 8.]

"Voilà les *Arabes-Bedouins*. * * * * We have enlarged somewhat in detail on this race, because, in the midst of this hybrid population of Syria, — of this confused mixture of Greeks, Jews, Turks, Barbaresques, Armenians, Franks, [i. e. *Europeans*], Maronites, Druzes, and Moghrabees — it is the only people that offers a special and homogeneous character, the only one whose ethnography can be attached to primitive traditions, and to the history of the first ages" (TAYLOR & REYBAUD, *La Syrie, l'Égypte, la Palestine, et la Judée*, Paris, fol. 1839, i. p. 125.)

No. 21. — FELLÀH.

[*Inedited*—modern Egyptian peasant: — PRISSE D'AVENNES'S portfolio, Paris, 1855.]

Compare the ancient and the modern type, as before exhibited (*supra*, Plates I, II); and commented on by Pulszky (Chapter II), and by myself in "Prefatory Remarks."

No. 22. — BERBER.

["Troupes d'Abd-el-Kàder:"—*Galerie Royale de Costumes*, Pl. 1.]

Compare CUVIER, Atlas, *Mammifères:* — BORY DE ST. VINCENT, *Anthropologie de l'Afrique Française* (Mag. de Zool., Paris, 1845), Pl. 60, No. II. See, also, my Chapter V, pp. 527–43.

No. 23. — UZBEK-TATAR.

["*Sjah mierza*, geweezen Cancellier in Golconda:" — from M. Pulszky's collection of forty-seven East-Indian portraits, by native artists; with Dutch MS. catalogue, "Namen der Perzoonen wien Conterfytsels in dit boekje Staan met aanwyzing hunnen qualiteyteh," No. 35.]

No. 24. — AFFGHÀN.

["A de Cabul:"—*Galerie Royale de Costumes*, Pl. 6.]

Types of Mankind, pp. 118–24; and against the latest Affghano-Jewish theories of ROSE and of FORSTER,—besides noting the colored portraits of *Douraunees* in MOUNTSTUART ELPHINSTONE'S *Cabul* — set the following affirmations from KENNEDY. The Affghàns, "originally a Turkish or Moghul nation, but that at present they are a mixed race, consisting of the inhabitants of Ghaur, the Turkish tribe of Khilji [swords?], and the Perso-Indian tribes dwelling between the eastern branches of the Hindu Kush and the upper parts of the Indus." (*Op. cit.*, p. 6,—supra, V, note 515; citing LEECH, in *Proceed. Geog. Soc. of Bombay*, 1838.)

IV.

AFRICAN REALM.

(Nos. 19, 20, 21, 23, 24.)

If "polyglotta" was so felicitously applied to the Asiatic world by Klaproth, and equally-well since [*supra*, Chapter I, p. 61.] to the African by Koelle, in regard to the languages spoken over more than half the terrestrial superficies of our globe, another

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designation,—that of "multicolor"—might, with propriety, be given to the human aborigines of that African continent, wherein, betwixt the Tropic of Cancer and that of Capricorn, the human skin possesses more shades and hues—totally independent of any imagined climatologic influences — than in any given area within the rest of this earth. To the evidences of this fact (new to general readers, who fancy that a woolly-headed "negro" must necessarily be *black*) accumulated, for southern Africa in Prichard's last volume, and for western in a pamphlet before cited (*supra*, Chap. III, p. 224; Chap. V, p. 551),—whilst in the Parisian *galerie anthropologique* abundant colored casts, paintings, and photographs, illustrate all three regions—the magnificent plastic collection of M. de Froberville (*supra* p. 608) will, when published, furnish for eastern Africa singularly unanticipated corroborations. On the Mozambique coasts alone, amid the nations grouped together, by this minutely-accurate observer, under the designation "Ostro-Negro" — amid whom the *M'kuas* are the most polychrome—nature's palette has supplied pigments of such innumerable tints that, only *sixty colored casts* have yielded 4 distinct nigritian types, subdivided into about 31 "variétés." In our *Ethnographic Tableau*, Nos. 27 and 28 represent two of these tints; and in our *Monkey-chart*, figs. F, C, and D, indicate three more.

REFERENCES AND EXPLANATIONS.

No. 25. — ABABDEE.

["*Âbd-el-Amid el-Abbadi* — 40 ans — des montagnes à 3 lienes de Cossêyr:" LEFEBVRE, *Voyage en Abyssinie* (1839–40), Paris, Atlas fol., 3.]

Knowing these people through long years of observation, I chose this as an admirable representation of their normal type; which the reader can contrast with an equally good *Bisharree* — as the next austral gradation along the Nile, eastern desert (*Types of Mankind*, p. 203, fig. 120). See VALENTIA (*Voy. and Travels, India*, &c., London, 4to, 1802–6, II, p. 289) for another good profile of a *Bisharree* — drawn by my boyhood's friend and manhood's admiration, the late Consul-General HENRY SALT.

No. 26. — SAHARA-NEGRO.

["Type Ethiopien (Nègre):"—BORY DE ST. VINCENT, *Anthropologie de l'Afrique Française*, Magasin de Zoologie, &c., Oct. 1845; Mammifères, Pl. 6, No. III; p. 13.]

Compare (*supra*, Chapter V, wood-cut B), *front-view* of the same head; together with the *profile* of the Gorilla, same page, wood-cut C.

No. 27. — YEBOO-NEGRO.

["*Ochi-Fékoué-Dé*, natif de Yébou (Âgé d'environ 42 ans):" — D'AVEZAC, *Notice sur le Pays et le Peuple des Yébous* (Mémoires de la Société Ethnologique); Paris, 8vo, 1839; Plate, and pp. 21–4, 45–6.]

Colored to represent an ordinary negro; but the true hue is said to be "un noir brun."

See DE FROBERVILLE, "sur la persistance des charactères typiques du nègre" (*Bulletin de Soc. de Ethnol. de Paris*, 1847, pp. 256–7).

No. 28. — MOZAMBIQUE-NEGRO.

["Nègre de la Côte de Mozambique:"—copied in Brazil by CHORIS, *op. cit.*, 1re liv., Pl. III.]

Colored to represent one of the various shades of the M'koua nation, in the inedited collection of 60 plaster casts of Africans brought from Bourbon and Mauritius by M. DE FROBERVILLE (Paris, 1855). Vide "Rapport sur les races nègres de l'Afrique Orientale au sud de l'équateur, observées par M. de Froberville;" *Comptes rendus des séances de l'Académie des Sciences*, XXX, 3 juin, 1850; tirage à part, pp. 11–14: — also, "Analyse d'un Mémoire de M. Eugène de Froberville," in *Bulletin de la Société Ethnologique de Paris*, année 1846, I, pp. 89–99:—and *Bulletins de la Société de Géographie.*

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No. 29. — CAFFR.

[" *Umbambu* (young Zulu in dancing costume):"—G. French Angas, *Kafirs Illustrated*, London fol., 1849.]

For good descriptions — less tinctured with "Exeter Hall" philanthropy than current English reports — see Delgorgue (*Voyage dans l'Afrique Australe* — "Cafres Amazoulous et Makatisses," Paris, 1847, 2 vols. 8vo); who has likewise exhibited these nations in their true light, in "Note sur les Cafres" (*Bulletin Soc. de Ethnologique de Paris*, 1847, pp. 132–48).

Contrast Louis Alberti (*Description physique et historique des Cafres*, Amsterdam, 8vo, 1811, p. 29), and Le Vaillant, (*2d Voy. dans l'Intérieur de l'Afrique*, Paris, 1783–5, II, Pl. XXI, III, pp. 33–189), with Lichtenstein (*Travels in South Africa*, London, 4to, 1812), who overthrows Barrow's Sinico-Hottentot predilections, whilst substantiating, *ad pugnandum*, this last naturalist's deductions. Patterson's *Narrative* (London, 1789), Sparrman's *Cap de Bonne Espérance* (Paris, 1787), and Salt's *Abyssinia* (London, 1814) furnish ample materials for Polygenists.

No. 30. — HOTTENTOT.

[Portrait of a Hottentot, aged "52 ans — costume naturel—à en 10 enfans"—exhibited at Paris, 1854–5; photographed by M. L. Rousseau — *Galerie Anthropologique du Muséum d'Histoire Naturelle*:—vide infra, pp. 608].

My friend, Mr. J. Barnard Davis, having shown me the two full-size colored casts of "Bushmen," male and female, in the Royal College of Surgeons, I am free to say that they differ as much from anything human I ever saw, as a pure Laconian *greyhound* does from a "pug."

Colored from Pl. 24 of Péron, *Voy. et Découv. aux Terres Australes* (Baudin's).

Excellent drawings, showing the *gradations* of feature in *Hottentots, Kaffre, Bosjesmans, Booshwanas*, &c. in Daniell (*Sketches representing the Native Tribes, Animals and Scenery of Southern Africa*, London, 4to, 1820); who, speaking of the *female* Hottentot, adds (p. 29) that, when young she is symmetrical, but "gradually degenerates into those deformities which are too well known to require a particular mention."

No. I assert that these peculiarities—which incontestably prove the Hottentots to be a distinct "species" — are not only little known, but that the facts have been suppressed—and by Cuvier himself—in order not to alarm Monogenists! The subject (see *Types of Mankind*, p. 431, wood-cut 276) is not fitted for elucidation in a popular work like the present; but the President of our Academy of Nat. Sciences, Mr. Ord, possesses the *suppressed* plates (which he has kindly shown me), and knows where the *original* colored drawings made at the Cape by Péron and Lesueur are preserved. [See Ord, "Memoir of Charles Alex. Lesueur,"—*Silliman's Journal*, 2d series, 1849, VIII, pp. 204–5, 210:—and take note that, of the plates beautifully engraved for the "Voyage aux Terres Australes," 4 (exhibiting the "Tablier" with amazing minuteness, and at all ages,) were suppressed, by Cuvier's order, in the 1st ed. 1816, and in the 2d, 1831; because the *livre* of Mr. Ord's unique copy has 28 (1 with 2 figures); whereas that published by Arthus Bertrand contains only 25 plates.] A more disgraceful case of unscientific pandering to the "Unity of the human *species*" can nowhere be found. Polygenists will, notwithstanding, get at these truths some day; and, in the interim, can gather an osteological difference between Hottentots and other "species" from Knox (*Races*, Philad. ed., 1850, pp. 152, 157); as well as read the comments of Virey (*Hist. Nat. du Genre Humain*, Paris, 1824, I, pp. 224, 244–53).

It is to the injudicious observations of John Barrow (French translation by

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Castéra, *Voyage en Chine*, Paris, 1805, I, pp. 77–82, Pl. IV, Atlas,)—and to his alone — that a notion has got abroad that the *Chinese* and the *Hottentots* resemble each other! PICKERING (*Races*, 4to, p. 219), forty years later, frankly states, "I am not sure that I have seen Hottentots of pure race."

V.

AMERICAN REALM.

(Nos. 37, 38, 39, 40, 41, 42.)

To ourselves in America this being naturally the most interesting, we may devote to its consideration a few more paragraphs than space admitted for the others.

"In fine, our own conclusion, long ago deduced from a patient examination of the facts thus briefly and inadequately stated, is, that *the American race is essentially separate and peculiar*, whether we regard it in its physical, its moral, or its intellectual relations. *To us there are no direct or obvious links between the people of the old world and the new;* for, even admitting the seeming analogies to which we have alluded, these are so few in number and evidently so casual as not to invalidate the main position; and even should it be hereafter shown, that the arts, sciences, and religion of America can be traced to an exotic source, I maintain that the organic characters of the people themselves, through all their endless ramifications of tribes and nations, prove them to belong to one and the same race, and that *this race is distinct from all others*" (MORTON, *Distinctive Characteristics of the Aboriginal Race of America*, Philadelphia, 8vo, 2d ed., 1844, pp. 35–6).

The Spanish Conquistadores had long ago remarked that "he who has seen one tribe of Indians, has seen all:" but, it must be also remembered that ULLOA, who first uses this sentence, was speaking of Central and South American aborigines; and not of the Northern, or *Barbarous* (as distinguished from Toltecan), races, — with whom he was wholly unacquainted.

"The half-clad Fuegian, shrinking from his dreary winter, has the same characteristic lineaments, though in an exaggerated degree, as the Indians of the tropical plains; and these, again, resemble the tribes which inhabit the region west of the Rocky Mountains — those of the great Valley of the Mississippi, and those, again, which skirt the Eskimaux on the North. All possess alike the long, lank, black hair, the brown or cinnamon-colored skin, the heavy brow, the dull and sleepy eye, the full and compressed lips, and the salient, but dilated nose. . . . The same conformity of organization is not less obvious in the osteological structure of these people, as seen in the square or rounded head, the flattened or vertical occiput, the large quadrangular orbits, and the low, receding forehead. . . . Mere exceptions to a general rule do not alter the peculiar physiognomy of the Indian, which is as undeviatingly characteristic as that of the Negro; for whether we see him in the athletic Charib or the stunted Chayma, in the dark Californian or the fair Borroa, he is an Indian still, and *cannot be mistaken for a being of any other race*" (MORTON, *Op. cit.*, pp. 4–5:—*Types of Mankind*, p. 439).

While lately at Paris, my friend M. Maury favored me with the loan of a book, then just issued from the press of (Cherbuliez) Geneva, — by M. F. DE ROUGEMONT (*Le peuple primitif, sa religion, son histoire et sa civilisation*, 2 vols. 8vo, 1855). As learned as the works of COUNT DE GIBELIN, DE PAUW, DE GUIGNES, DE FOURMONT, BAILLY, WARBURTON, or DUPUIS, it far surpasses that of FABER (*Origin of Pagan Idolatry*) in the immensity of its geographical range and the variety of its literary sources. Having been, in due course of time, reviewed by M. Maury himself (*Athenæum Français*, 6 Octobre 1855), some passages of his article, bearing upon the literary character of our earliest post-Columbian authorities for American history, are here introduced.

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"M. Frédéric de Rougemont accepts without hesitation the contents of the Old Testament; avoiding to distinguish between the moral and religious part, and the purely historical and geographical part,—between the divine part and the human part. In his eyes, one and the same character of inspiration consecrates all the pages of the holy book; and the *rôle* of the critic reduces itself to that of a commentator. * * *

"I shall not undertake to discuss the principles upon which M. de Rougemont scaffolds his edifice. I will restrict myself to consigning here one observation, viz: that, although Protestantism is the school of free inquiry, there exist in its bosom some persons who, in matters of biblical exegesis and criticism, show themselves much less liberal and less bold than the Catholics are themselves. Inasmuch as the Protestants feel the lack of an authority, and as that of a traditional dogmatic tuition is wanting to them, they cling with earnestness to a book which is the only authority to them remaining, and they will not issue from a literal and narrow interpretation. This system greatly injures the advancement of a multitude of sciences,—such as ethnology, chronology, geology, &c.—that have need of liberty and independence.

"In order to proceed in a method truly scientific, it is necessary to clear the table (*faire table rase*) of everything which has no scientific value, and consequently of everything that is not conformable to reason. Sufficient is it to say, that the domain of faith and the domain of science are altogether distinct: nor can they be confounded without compromising the dignity and the *rôle* as well of the one as of the other. But, on the opposite hand, science, when she stands upon her own ground, cannot, without self-abnegation, admit that to be demonstrated and certain which is only so in respect to sentiment. The fault of M. de Rougemont is, to have constantly mingled the two methods; no less than to have believed that he could, at one and the same time, satisfy purely-scientific opinions and religious convictions.

"It has happened to the author of this book what had occurred to the first missionaries who went forth to preach the gospel among savages. Pre-occupied with the thought of re-finding, in the tales and gross imaginations of such septs, some remembrances of the pristine fatherland whence these believed themselves to have issued, the missionaries have modified, often unknowingly, often intentionally likewise, the recitals they had heard, in order to invest them with a more biblical color. They have transformed into serious and connected traditions that which was but the instantaneous and capricious creation of a savage poet *inspired through their own discourses;* and it is such stuff which they have presented to us as the seculary reminiscences of the savages whom they were evangelizing. Indeed, these infantile stories did not often ascend to an epoch more ancient than the missionaries from whom we receive them,—and already the influence of the ideas preached by them, of the facts by themselves taught to their catechumens, made itself felt within the very narrow circle of the conceptions of these tribes. In this manner, the apostles of Christ only retook, under another form, that which they themselves had sown; and they registered, as ancient traditions, that which was naught but the fantastic envelope given to their own teaching. This is what has incontestably occurred,—notably on the discovery of America, and more recently in the islands of the Indian Archipelago and of Polynesia. It suffices to cast one's eye upon the first accounts that the Spaniards composed about the religion and the usages of the Indians, in order to convince oneself that the former constantly mixed up their own beliefs with the fables which they gathered here and there amongst the savages."

After proving his positions — for Mexico, through D. Andres Gonzales Barcia, Francisco Lopez de Gomara, Juan de Torquemada, Father Lafitau, Garcilasso de la Vega, and D. Fernando d'Alva-Ixtitxochitl — for New Zealand, through Sir George Grey, [Dunmore Lang], J. C. Polack, Diefenbach, and Mœrenhout — and for Peru, through the Jesuit Pedro José de Ariaga, subjected to the recent scalpel of T. G. Müller (*Geschichte der Amerikanischen Urreligionen*) — M. Maury glances over the ultra-biblical notions of ancient Egypt, Greece, and Hindostân; and lastly touches upon the traditions of the Hebrews:

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"That which comes against the suppositions of our author is,—the very trifling development which the dogma of a future state, and of demons, had taken among the Israelites; whereas we see it serving as a basis to the great polytheistic religions of antiquity. If the biblical tradition had been the foundation of pagan beliefs, how comes it that that which was to itself the most foreign should have played amid them the principal part? And, on the other hand, one would be compelled to recognize that these heathen nations have been more faithful depositaries of the primitive gospel than the elect-people itself,—because Christianity has adopted those dogmatical data which the Greeks and the Egyptians knew a great deal better than the Hebrews. Our author really feels the difficulty; and it is in vain that he tries to parry the objection accruing from it against his system.

"There is, however, one point upon which I will not combat M. de Rougemont, and which will give me an occasion to conclude this polemic—perhaps a little too prolonged—with a treaty of peace. The Swiss writer respects in all religions their dignity, and that which may be called, up to a certain point, their truth. They are, indeed, the ones as well as the others, the expression of the gratitude of man towards his Creator, towards Nature, whose benefits sustain his existence. They constitute the more or less naïve shape which thought puts on whilst meditating upon our destinies; and, as such, they have the right to be seriously studied; as such, they must find place in the history of that which is the noblest of our being. Beneath those errors,—natural fruits of credulity and fear—that encircle human belief, there lives a profound and instinctive sentiment which is bound up with all our good instincts, whensoever it be suitably directed and restrained:—this sentiment is that of the soul feeling its weakness, which has need of the support of the mysterious Being whence it proceeds. This sentiment consoles and strengthens: it is the refuge of the honest man, and the motive-power of the most sublime sacrifices. Science, far from combating it, bows before it. She accepts it as a fact as evident as the most evident of physical and historical facts. M. de Rougemont feels these truths with more force than any man, because it is the excess of this sentiment that leads him astray. He wishes, like the ancient Gnostics, to behold but the rays of which the luminous portion becomes enfeebled in the ratio that they remove themselves farther from the Divine focus whence they emanate; but, whatever may be said about it, *matter has also had its part to play in these creeds and these superstitions*,—and the majority were born upon a soil that had not been warmed by the gentle light with which he is illumined."

Finally, those who may care about knowing what is now, in France and Germany, the scientific stand-point as concerns such words as "Creation," "Deluge," "Ark," and other Semitico-Christian traditions, have merely to turn over the leaves, for about 80 instances, *sub vocibus*, of DIDOT'S *Encyclopédie Moderne*, last edition.

REFERENCES AND EXPLANATIONS.

No. 31.—KUTCHIN-INDIAN.

["*Kutcha-Kutchin* warrior (Loucheux-Indians of Mackenzie):"—RICHARDSON, *Arctic Searching Expedition* (1848-50), London, 1851; I, p. 381.]

For instinctive hatreds between the indigenous Indian races and the Arctic Eskimo, compare HEARNE (*Northern Ocean*, London, 1769–72, Chap. VI), HOOPER (*Tuski*, pp. 272–5), and RICHARDSON (*Op. cit.*, I, pp. 377–402).

No. 32.—STONE-INDIAN.

[*Stone-Indian* (near Cumberland House:"—FRANKLIN, *Voy. to Polar Sea*, London, 1823, p. 104.]

"The '*Tinné*" [as the Eskimos term the Indians], or Chippewyans = Indians, stretch across the continent of America, meeting the Eskimos on the east, and the *Kutchin* on the west of the Rocky mountains (RICHARDSON, *op. cit.*, II, pp. 1–59). No two types are more distinct than American Indians and the Arctic men.

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No. 33. — OTTOE-INDIAN.

["*Wah-ro-nee-sah*, the Surrounder, an Ottoe-chief:"— PRICHARD, *Nat. Hist. of Man*, 1855; II, p. 547 (from Catlin), Pl. LIII.

No. 34. — YUCATAN-INDIAN.

["Indien Contrebandier de l'Intérieur:"— WALDECK, *Voyage Pittor. et Archéol. dans la Province de Yucatan* (*Amérique Centrale*), 1834–6; Paris, fol. 1837; Pl. V.]

Unfortunately, the plates in RICHARD SCHOMBURGK (*Reisen in British Guiana*, Leipzig, fol. 1835; I, p. 429; II, p. 42) are uncolored; whilst "Essetamaissu Wapisiana" is Europeanized. There are, however, excellent descriptions of the colors, &c., in ROBT. H. SCHOMBURGK's beautiful work (*Twelve Views in British Guiana*, fol., 1841, pp. 30–1).

No. 35. — BOROUA-INDIAN.

[DEBRET, *Voyage Pittor. au Brésil*, Paris, fol., 1835; Pl. 29, fig. 8.]

Colored from descriptions in DE CASTELNAU — (*Expédition dans les parties centrales de l'Amérique du Sud*, Paris, 1843–51, "Vues et Scènes," pp. 6–14), compared with a tint obtained at the *Galerie Anthropologique*. MORTON called them "the fair Borroa."

VON SCHWEGE (*Brasilien die Neue Welt*, Brunswick, 8vo, 1830, pp. 215–44), D'ORBIGNY (*Amérique méridionale*, Paris, 1846; Atlas, Plates 1–13), PRINCE MAX. OF WIED-NEUWIED (*Travels in Brazil*, London, fol. 1820, pp. 311–12, pl. xvii, on "Botocudos"), DEBRET (*Brésil*, Paris, fol., 1835, II, pp. 2 seqq.), AUG. DE ST. HILAIRE (*Rio de Janeiro et de Minas Geraes*, Paris, 8vo, 1830, I, pp. 424–6; II, pp. 48–231) — not to mention my friend M. Ferdinand de St. Denis, Librarian of the "Bibliothèque de St. Géneviève," who has critically summed up the whole of these authorities in his various publications — may, perhaps, arrest the attention of some reader, before he voluntarily concedes that monogenistic views on human "species" are things yet scientifically established.

No. 36. — FUEGIAN.

["*Yapoo Tekeenica* — Pecheray-man:"— FITZROY, *Surveying Voy.* of "Adventure" and "Beagle" (1826–39); London, 1829, II, p. 141.

Colored from descriptions in *Idem;* and in D'ORBIGNY'S "L'Homme Américain."

VI.

POLYNESIAN REALM.

(Nos. 37, 38, 39, 40, 41, 42.)

"Océanie," in Dumont d'Urville's ethnic map (*Voyage de la Corvette l'Astrolabe*, 1826–9; Paris, folio Atlas, 1833: — 8vo Text, II, pp. 610–30), is luminously depicted in four colors, viz: *Malaisie* in blue, *Micronésie*, in green, *Mélanésie* in yellow, and *Polynésie* in pink.

Only the three last named subdivisions comprehend the human *faunæ* of our "Polynesian" REALM.

What their respective contrasts are, is, in our Tableau, inadequately illustrated in one line of portraits. What the greatest of modern circumnavigator's opinions were, on the types of mankind so thoroughly studied by himself, may be gathered from three paragraphs.

"It is now-a-days almost averred that the *Alfourous* of Timor, of Ceram and Bourou·the *Negritos del monte*, or *Aetas*, of Mindanao; the *Indios* of the Philippines; the *Ygolotes* of Luzon; the *Negrillos* of Borneo; the *blacks* of Formosa, of the Andamans, of Sumatra,

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of Malacca, and those of Cochin-China, called *Moys* or *Kemoys*, — appertain to this same primitive race of Melanesians [black-islanders] who must have been the first occupiers of Oceania.

"We do not hesitate to believe that the POLYNESIANS arrived from the west and even from Asia [an 'opinion']; but we do not at all believe that they are the descendants of the present Hindoos. They had probably a common origin with them; but the two nations had been already separated for a long time, when one of them went to people Oceania.

"The same holds good as regards the consequences which different voyagers have drawn from the relations observed between the POLYNESIANS and the Malays. Without any doubt, these two nations had of yore some intercourse. Lengthened studies have caused us to discover about 60 words which are evidently common between the two tongues; and that is sufficient to attest some ancient communications. But, there is too much difference in the physiological 'rapports' for one to be able to suppose that POLYNESIANS could be merely a Malayan colony."

REFERENCES AND EXPLANATIONS.

No. 37. — NEW ZEALANDER.

["*Touri*, chef de la Nouvelle Zélande:" — DUPERREY, *Voy. autour du Monde*, "Coquille" (1822–5); Paris, 1826, folio Atlas, No. 47.]

It should be remembered that the contracted skin, in *tatooed* New Zealand faces, proceeds from the cicatrices accruing from such process.

No. 38. — SAMOA-ISLANDER.

["Man of the Samoan Islands:" — PRICHARD, *op. cit.*, II, Pl. XXVIII, p. 451.]

ERSKINE (*Cruise, H. M. S. Havannah*, London, 8vo, 1853) gives the most recent and the best accounts of the commingling of different blood in the western Pacific; since those of QUOY and GAIMARD (*Zoologie*, "Astrolabe," 1830, I, pp. 15–57), and of LESSON and GARNOT (*Zoologie*, "Coquille," Paris, 1826, I, pp. 8–116).

No. 39. — TIKOPIA-ISLANDER.

["Naturel de Ticopia:" — D'URVILLE, *Voy.* "Astrolabe," Pl. 177; V, pp. 109–14].

Colored from *Idem*, Pl. 185.

See Nott's Chapter IV (*supra*, note 29) for the fact that these fair Islanders of the true *Maori* race cannot acclimate themselves on an adjacent island of the same Archipelago, whereon the aboriginal Blacks flourish.

No. 40. — VANIKORO-ISLANDER.

["*Maingho* de Manévé:" — D'URVILLE, *op. cit.*, Pl. 176, V, p. 155].

On this island, in 1788, were wrecked two French frigates, and, amidst these people, with all the gallant Frenchmen, perished LA PÉROUSE—whose immortal name ennobles this archipelago. The accounts of Captain Dillon, and of Dumont d'Urville—who himself, after braving unharmed the perils of the sea in three voyages round the world, was burnt up in a rail-car at Meudon, together with his wife and son — furnish all particulars.

No. 41. — TANA-ISLANDER.

["Man of Tana, New Hebrides:" — ERSKINE, *Cruise, &c. in Western Pacific* (1849), H. M. S. "Havannah;" London, 1853; Pl. III, p. 325.]

For an admirable "Tableau synoptique des principales variations de taille dans les races humaines," which includes all these islanders as well as other types of man, consult ISID. GEOFF. ST. HILAIRE (*Anomalies de l'organisation*, Paris, 8vo, 1832, I, p. 235).

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No. 42. — VITI-ISLANDER.

["Habitant de Havre-Carteret, avec sa peinture de cérémonie?"—D'URVILLE, *op. cit.*, Pl. 99, IV, p. 446.]

Colored from *Idem*, Pl. 100. All these islanders bedaub their faces, and stain their hair with red and yellow ochres.

VII.

MALAYAN [otherwise "East-Indian"] REALM.

(Nos. 43, 44, 45, 46, 47, 48.)

RAFFLES, MARSDEN, CRAWFURD, LOGAN: — these four names constitute, among the latest, our most reliable authorities.

The most advanced ground of their researches has been already covered by M. Maury's Chapter I.

Not having yet received Mr. Crawfurd's last work (1856), I must present the reader with this gentleman's views (in *History of the Indian Archipelago*, Edinburgh, 8vo, 1820; I, pp. 13–28); after remarking, that European first acquaintance with the Malay race commenced simultaneously with that of the American, viz: only at the close of the XVth century.

"The first of these [facts] refers to an original and innate distinction of the habitants into two separate races. In the Indian Archipelago there are—an aboriginal *fair* or *brown* complexioned race,—and an aboriginal *negro* race; and, the southern promontory of Africa excepted, it is the only country of the globe which exhibits this singular phenomenon. * * *

"No country has produced a great or civilized race, but a country which, by its fertility, is capable of yielding a supply of *farinaceous* grain of the first quality. * * * Their boats and canoes are, to the Indian Islanders, what the camel, the horse, and the ox, are to the wandering Arab and the Tartar; and the sea is to them what the *steppes* and the *deserts* are to the latter. * * *

"The savages of New Guinea, surrounded at this day by the most splendid, beautiful, and rare objects of animal and vegetable nature, live naked and uncultivated. Civilization originated in the west, where are situated the countries capable of producing corn. Man there is most improved; and his improvement decreases, in a geographical ratio, as we go eastward, until, at New Guinea, we find the whole inhabitants an undistinguished race of savages. * * *

"There are *two* aboriginal races of human beings inhabiting the Indian Islands, as different from each other as both are from all the rest of their species. * * * One of these races may be generally described as a brown-complexioned people, with lank hair; and the other as a black, or rather sooty-coloured race, with woolly or frizzled hair. * * * The *brown* and the *negro* races of the Archipelago may be considered to present, in their physical and moral character, a complete parallel with the White and the Negro races of the western world. The first have always displayed as eminent a relative superiority over the second, as the race of white men has done over the negroes of the west. All the indigenous civilization of the Archipelago has sprung from them; and the negro race is constantly found in the savage state. * * * In some of the Spice islands their extirpation is matter of history. * * * The *brown* colored tribes agree so remarkably in appearance themselves, that one general description will suffice for all. * * * The standard of perfection in color is *virgin-gold;* and as the European lover compares the bosom of his mistress to the whiteness of snow, the East-Insular lover compares that of his to the yellowness of the precious metal. * * * The complexion is scarcely ever clear, and a blush is hardly at any time discernible. * * *

"The Papua, or woolly-haired race, of the Indian islands is a *dwarf* African negro. A full-grown male brought from the mountains of Queda * * * proved to be no more than

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4 feet 9 inches high. * * * The skin, instead of being jet black, as in the African, is of a sooty colour. * * * The East-Insular negro is a distinct variety of the human species, and evidently a very inferior one. * * * They have in no instance risen above the most abject condition. Whenever they are encountered by the fairer races, they are hunted down like the wild animals of the forest, and driven to the mountains or fastnesses, incapable of resistance. * * *

"The question of the first origin of both the negro and brown-complexioned races, appears to me to be one far beyond the compass of human reason. By very superficial observers, the one has been supposed a colony from Africa, and the other an emigration from Tartary. Either hypothesis is too absurd to bear the slightest examination. Not to say that each race is radically distinct from the stock from which it is imagined to have proceeded; the physical state of the globe, the nature of man, all we know of his history, must be overturned to render these violent suppositions possible."

REFERENCES AND EXPLANATIONS.

No. 43. — MALAY.

["Native of Solor:" — GRIFFITH'S *Cuvier, Animal Kingdom*, London, 1827; I, Plate, p. 188.]

See original, with some variation of hue, in PÉRON, *Voy. aux Terres Australes*, (1800–4); 2d ed.; corrected by De Freycinet, Atlas Hist., Pl. V, "sold at d'Infantérie Malaise."

My brother William, who (with my brother Henry) has transferred his residence from the vicinity of Memphis on the Nile, to Memphis on the Mississippi, resided four years in the Indian Archipelago, where his knowledge of Arabic, familiarity with Mussulmans, and clear ethnological perceptions, enabled him readily to acquire *Malay*. He writes me the following on these portraits: "Your *Malay* I consider to be the offspring of a *Kling* (low-caste man of Madras) and a Malay woman. The Mintirá (No. 46) looks more like a Malay. Intercourse between a *Kling* and a Malayan woman is not uncommon."

No. 44. — JAVANESE.

["Singo-Sekar:" — VAN PERS, *Oost-Indische Typen*; Holland, folio, 1854; 5 aflering.]

See RAFFLES (*Hist of Java*, London, 4to, 1817, — Plates, frontispiece & I, p. 92 — also, p. 59) for the fact that, inasmuch as high-caste Malayo-Javanese complexion is "a virgin-gold color," this "Singo-Sekar" must be low-caste.

No. 45. — MARIANNE-ISLANDER.

["*Claudio-Lajo* (Indien de race pure)," at Guam:—DE FREYCINET, *Voy.* "l'Uranie;" Paris, 1825, Pl. 61, No. 2.]

No. 46 — HINDOO.

["*Chaan-Channa*, Veldheen van Vidzjapour:"—portrait by native artist (*ubi supra*, Chap. II, figs. 93–6), in the PULSZKY collection, Dutch catalogue, No. 21: — enlarged, like the preceding one, to match the other heads in this Tableau.]

Compare for characteristic Hindoos the HON. MISS EDEN'S *Portraits of the Princes and People of India*, London, fol., 1844. Although uncolored, there are none so good.

No. 47. — MINTIRÁ.

["Man of the Mintirá tribe" (from Gugong Bermun, who lately settled at Rumbiáh near Malacca: — LOGAN, "Physical characteristics of the Mintirá." — *Journal of the Indian Archipelago*, I, No. V, Nov., 1847; pp. 294–5; and *Supplement*, Dec. 1847; pp. 328–35, Plate p. 307, 2d fig.]

Colored by descriptions in No. V, pp. 247–8, 251; but no special reference, strange to say, being made to individual coloration in these critical papers, it is as well to compare Vol. II, May, 1848, pp. 245–8, &c.; with HAMILTON SMITH, *op. cit.* pp. 224–8. As a memento of the changes which some of these islanders

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are now undergoing, I may quote from LOGAN: "Unlike the Mantawe and Niha [described elsewhere], the Maruwi—at least those of Baniak—have lost most of the proper Niha-Polynesian habits, and adopted those of the Achinese and Malays" (*Journal of the Indian Archipelago*, Singapore, I, new series, No. 1, 1856, pp. 8–10).

No. 48. — NEGRILLO.

["A Papuan or negro of the Indian Islands:" — CRAWFURD, *Hist. of the Indian Archipelago*, Edinb., 1820; I, Pl. 1.]

Compare PICKERING (*Races*, 4to, pp. 170–4, and Pl. VIII) for good descriptions of these varied and most inferior races.

Leaving aside the romance of P. DE LA GIRONIÈRE (*Vingt années aux Philippines*, Paris, 12mo, 1853), the best accounts of these "Negritos, Indiens, Tagales, Bisayas, Igorotes, Bnriks, Itapanes, Tinguianes, Guinaanes, Yfugaos, Gaddanes, Calanas, Apayaos, Ibilaos, Ilongotes, Isinayes," are in MALLAT (*Les Philippines*, Paris, 8vo, & Atlas fol., 1846); who, moreover, furnishes abundant examples of *hybridity* in its most extraordinary combinations. Above a million of the aboriginal *Negritos* are extant at the islands of Luzon and Mindanao alone.

VIII.

AUSTRALIAN REALM.

(Nos. 49, 50, 51, 52, 53, 55, 56.)

Among the more recent authorities consulted — aside from the voyages of Cook, followed by the whole series of French circumnavigators — such as Flinders, Angas, Montgomery Martin, De Strzelecki, Leichhardt, Mitchell, Beete Jukes, &c.; it is from MACGILLIVRAY, nevertheless (*Voyage of H. M. S. Rattlesnake*, London, 8vo. 1852, II, pp. 1–3), that one derives a fact really important enough, — always supposing the reader to possess some knowledge of the zoological amid other anomalies of that unaccountable continent — to be here recalled. This fact, observed by a very competent witness, is, that "The junction between the two races, the Papuan from the north, and the Australian from the south, is effected at Cape York by the Kowraregas, whom I believe to be a Papuan colony of Australians." Here the fusion of these two distinct types, through amalgamation and at their only point of contact, is complete. Five distinct native tribes are blended, in the neighborhood of this Cape, more or less into a race of hybrids,—those further back on the mainland being pure *Australians*, and those across Torres Strait on the islands being pure *Papauas;* the characteristics of both types becoming contrasted by comparing Nos. 41, 42, with Nos. 49, 50, 51. No accounts pretending to identify the now perhaps extinct *Tasmanians* (Nos. 53, 54) with either; or to suppose communication ever existed between the helpless savages of New South Wales and those of Van Diemen's Land; we thus discern at a glance that Papuans, Australians, and Tasmanians, are animals as distinct as the various "species" of kangaroos found upon the same continent and island.

REFERENCES AND EXPLANATIONS.

No. 49. — NORTH AUSTRALIAN.

["*Nemare* (Sauvage des environs de la rivière Nepean), Nouvelle Hollande:" — DE FREYCINET, *Voy. et Découv. aux Terres Australes*, "l'Uranie" (1800–4); Pl. 100, fig. 3.]

No. 50. — WEST AUSTRALIAN.

["*Ourou Maré*, Habitant de la Nouvelle Hollande:" — CUVIER, *Règne Animal, Mammifères*, Pl. 8, fig. 1: — the original (also uncolored) is in PÉRON, *op. cit.*

Colored from PICKERING, *Races*, U. S. Explor. Exped., IX, 1848; Pl. V, pp 137–8. Compare HAMILTON SMITH, *op. cit.*, Pl. 17, & p. 460.

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No. 51. — SOUTH AUSTRALIAN.

["*Millitie*, a man of the Battara tribe beyond Port Lincoln:" — G. F. ANGAS, *South Australia Illustrated*, London, fol., 184; Pl. XVIII.]

No. 52. — TASMANIAN.

["*Jemmy*, Native of the Hamplin Hills:" — STRZELECKI, *Phys. Descr. of New South Wales and Van Diemen's Land*, London, 8vo, 1845, p. 333.]

Colored by descriptions.

No. 53. — TASMANIANS, Man and Woman.

["Indigènes des deux sexes (Van Diemen):" — D'URVILLE, *op. cit.* "Astrolsbe," Pl. 153; V, p. 191.]

Colored from original in PÉRON, *op. cit.* Compare CUVIER, *Mammifères*, and the *Atlas du Voy. à la recherche de la Pérouse*, Nos. 7, 8. See other examples in Captain COOK's Voyages, equally disagreeable.

In the parallel line of our *Tableau* is a skull from the Mortonian collection upon which Dr. Meigs has enlarged (*Chapter* III, Fig. 78). I was with the late Dr. MORTON when he received this specimen, and saw him note in his MS. *Catalogue* (IIId ed., 1849, No. 1327), that this "skull is the nearest approach to the orang type that I have seen."

More than 20 years previously, DUMONT D'URVILLE ("Astrolabe," 1826–9, — I, p. 403) thus describes, on the spot, the hideousness of these, now all but extinct, types of mankind:—"Plusieurs ont les mâchoires très-proéminentes, et l'un d'eux, nommé le vieux *Wirang*, eût fort bien pu passer pour un Orang-outang."

I believe that our **ETHNOGRAPHIC TABLEAU** establishes what Baron de Humboldt has so eloquently deprecated — and Count de Gobineau so strongly insists upon — viz.: the existence of *superior* and *inferior* races.

In these last two specimens of Nature's handicraft upon Prof. Owen's "sole representative of his [man's] order," we have reached the lowest.

But, inasmuch as within the "Australian Realm," amidst other zoological anomalies, the *Orang-utan* has never existed, I proceed, in my final section, to examine where some of the highest *simiæ* and some inferior types of the "genus homo" may happen to find themselves in geographical contact.

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SECTION II.

ON THE GEOGRAPHICAL DISTRIBUTION OF THE *SIMIÆ* IN RELATION TO THAT OF SOME INFERIOR TYPES OF MEN.

(With a Map containing 54 Monkeys, and 6 human portraits.)

> "The monkeys are entirely tropical. But here again we notice a very intimate adaptation of their types to the particular continents; as the monkeys of tropical America constitute a family altogether distinct from the monkeys of the old world, there being not one species of any of the genera of Quadrumana, so numerous on this continent, found either in Asia or Africa. The monkeys of the Old World, again, constitute a natural family by themselves, extending equally over Africa and Asia; and there is even a close representative analogy between those of different parts of these two continents — the orangs of Africa, the Chimpanzee and Gorilla, corresponding to the red orang of Sumatra and Borneo, and the smaller long-armed species of continental Asia. And what is not a little remarkable, is the fact that the black orang occurs upon that continent which is inhabited by the black human race, while the brown orang inhabits those parts of Asia over which the chocolate-colored Malays have been developed." (AGASSIZ.)[598]

I first read the above paragraph at Portland, Maine, — where chance threw me in the way of Prof. Agassiz, within a week or two after its publication.

Time passed away. I was then occupied with other pursuits; until, in March 1853, another, to myself most welcome, chance again cast us together as fellow-travellers by car and steam-boat from Atlanta, Ga., to Mobile, Ala.; — the Professor to deliver a course of Lectures at the latter city,—myself to continue, at our[599] "ritiro" over that bay, those studies which resulted in the issue, one year afterwards, of the precursory volume to the present.

Distance, and my own avocations, precluded my enjoying the advantage of listening to more than three of those six discourses which will, for a long time, render the Professor's name a "household word" among Mobilians; but, I made it a point to attend the last; inasmuch as Prof. Agassiz had kindly forewarned Dr. Nott and myself, that this lecture was to be "for *you*." Pencil and note-book in hand, I went prepared to take down some memoranda for individual reminiscence: but, very few minutes elapsing before, entranced, so to say, by his easy flow of language and swiftness of black-board demonstration, whilst uncoiling a chain of facts, in Natural History, such as no other man can link together through an

[598] *Christian Examiner*, Boston, July, 1850: — *Types of Mankind*, p. 75.

[599] Capt. Howard's — Daphne, Mobile Bay — where Mrs. Gliddon, our little boy and myself, enjoyed for many months a most delightful residence.

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equal number of English words,—what I heard became photographed upon the leaves of memory instead of being scribbled simultaneously upon paper; and, next day, I re-crossed the bay, ... to muse. This was on the 13th April, 1853.

On the 14th idem, some gifted penman (unknown to me even by name, although known to Dr. Nott) published "The Lecture of Agassiz"[600] in a form, — as to mere verbal utterance condensed, but as to accuracy of fact so extraordinary (even to a "lecturer" *blasé* like myself) — that I feel it to be no injustice to Prof. Agassiz to subjoin a citation, just as if the "reporter's" phraseology had been literally his own: —

"My own views on this subject differ widely from those of others, who have before maintained an original diversity of races. In my opinion not only did different *races*, or types of mankind, as the five races, so called, have a distinct origin,—but each distinct *nationality*, which has played an important part in history, had a separate origin. Men were created in *nations*.[601] * * * If there was such a community of origin among men, why had each region peculiar animals,—why did they not transmit the same domestic animals which they had already subdued? On the contrary, these animals are as distinct as the races among whom they were found. * * * If then we compare the physical facts in respect to the different races — giving each its proper value — if we consider that in the earliest times, different languages were in simultaneous use—as unlike as the notes of different species of animals; if we regard the subject of hybridity in all its bearings, allowing the dissimilarity of species in animals in different localities its proper weight, we shall be drawn inevitably towards the conclusion of a diversity of origin and separate centres of creation. * * * Diversity has marks and evidence of plan and gradation among races as among animals. We find an original physical type distinguishing the races, at the same time showing a community from the lowest to the highest.

"There is no such resemblance between the ape and man. Animality and humanity are entirely distinct. While, then, there are traits of resemblance between the colored races and these animals, they never could have arisen from apes. But we see in the races a gradation parallel to the gradations of animals up to man. Yet the colored races, though separated from animals entirely, in many traits resemble them more than they do the highest types of man. The inferior races, by successive gradations, are linked to a higher humanity. How could climatic influences produce these results? How could all physical causes combined? It would be to make an accident produce a logical result; in short, an absurdity.

"In the whole world of life we find this gradation. It is not alone in the animal kingdom as it now exists, but in the antecedent ages, as far back as the oldest fossils, we see the same distinct order and gradation; and we find evidence that, in those early ages, a plan was already laid out: we find the first expression of the same thought developed in the successive structures of all animals and plants."

The next enlargement (known to me) of this fundamental idea occurs in Prof. Agassiz's "Provinces of the Animal World."[602]

"The East Indian realm is now very well known zoologically, thanks to the efforts of English and Dutch naturalists; and may be subdivided into three faunæ, that of Dukhun,

[600] *Mobile Daily Tribune*, April 14, 1853.

[601] *Types of Mankind*, pp. 74, 82.

[602] *Op. cit.*, p. lxxi–ii.

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that of the Indo-Chinese peninsula, and that of the Sunda Islands, Borneo, and the Philippines. Its characteristic animals, represented in the seventh column of our Tableau, may be readily contrasted with those of Africa. There is, however, one feature in this realm which requires particular attention, and has a high importance with reference to the study of the races of men. We find here upon Borneo (an island not so extensive as Spain) one of the best known of those anthropoid monkeys, the orang-outan; and with him as well as upon the adjacent islands of Java and Sumatra, and along the coasts of the two East Indian peninsulæ, not less than ten other different species of Hylobates, the long-armed monkeys, —a genus which, next to the orang and chimpanzee, ranks nearest to man. One of these species is circumscribed within the island of Java, two along the coast of Coromandel, three upon that of Malacca, and four upon Borneo. Also, eleven of the highest organized beings which have performed their part in the plan of the creation within tracts of land inferior in extent to the range of any of the historical nations of men! In accordance with this fact, we find three distinct races within the boundaries of the East Indian realm: the Telingan race in anterior India, the Malays in posterior India and upon the islands, upon which the Negrillos occur with them. Such combinations justify fully a comparison of the geographical range covered by distinct European nations with the narrow limits occupied upon earth by the orangs, the chimpanzees, and the gorillas; and though I still hesitate to assign to each an independent origin (perhaps rather from the difficulty of divesting myself of the opinions universally received, than from any intrinsic evidence), I must, in presence of these facts, insist at least upon the probability of such an independence of origin of all nations; or, at least, of the independent origin of a primitive stock for each, with which at some future period migrating or conquering tribes have more or less completely amalgamated, as in the case of mixed nationalities."

It may well be supposed that repeated assertions like the above, proceeding from such an authority, stimulated the curiosity, to say the least, of an archéologue towards their *verification.*

As in the discovery of Lake Mœris by my old friend and colleague LINANT-BEY,[603] this leading idea continued to float in my mind—"sans pouvoir m'arrêter à une conception satisfaisante, lorsqu'enfin une circonstance presque fortuite détermina en moi avec précision une pensée qui s'y agitait depuis long-temps d'une manière confuse."

This circumstance was my departure hence for Europe, in October, 1854, with the view of collecting materials for the present volume. I reasoned with myself that, *if* such be the facts in zoological organism, the "proper study of mankind" will have to be commenced *da capo.* With no hostile intent, but with a sort of constitutional impulse to eradicate error,—as Bacon says, "the traveller cuts down a bramble in passing"—I have subjected Prof. Agassiz's theory to an archæologist's *experimentum crucis.*

He will be the first to acknowledge that the earliest notice he had of any such intention on my part, was the reception, at Cambridge, last October (1856), of a lithographic and uncolored *proof* of the annexed "Monkey-chart,"—which, together with those of some

[603] *Mémoire sur le Lac Mœris, présenté et lu à la Société Égyptienne* [founded at Cairo, 1836, by himself, Alfred S. Walne, James Trail, Peter Taylor, and myself]; Alexandrie, 4to, 1843, p. 18

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CHART ILLUSTRATIVE OF THE GEOGRAPHICAL DIST

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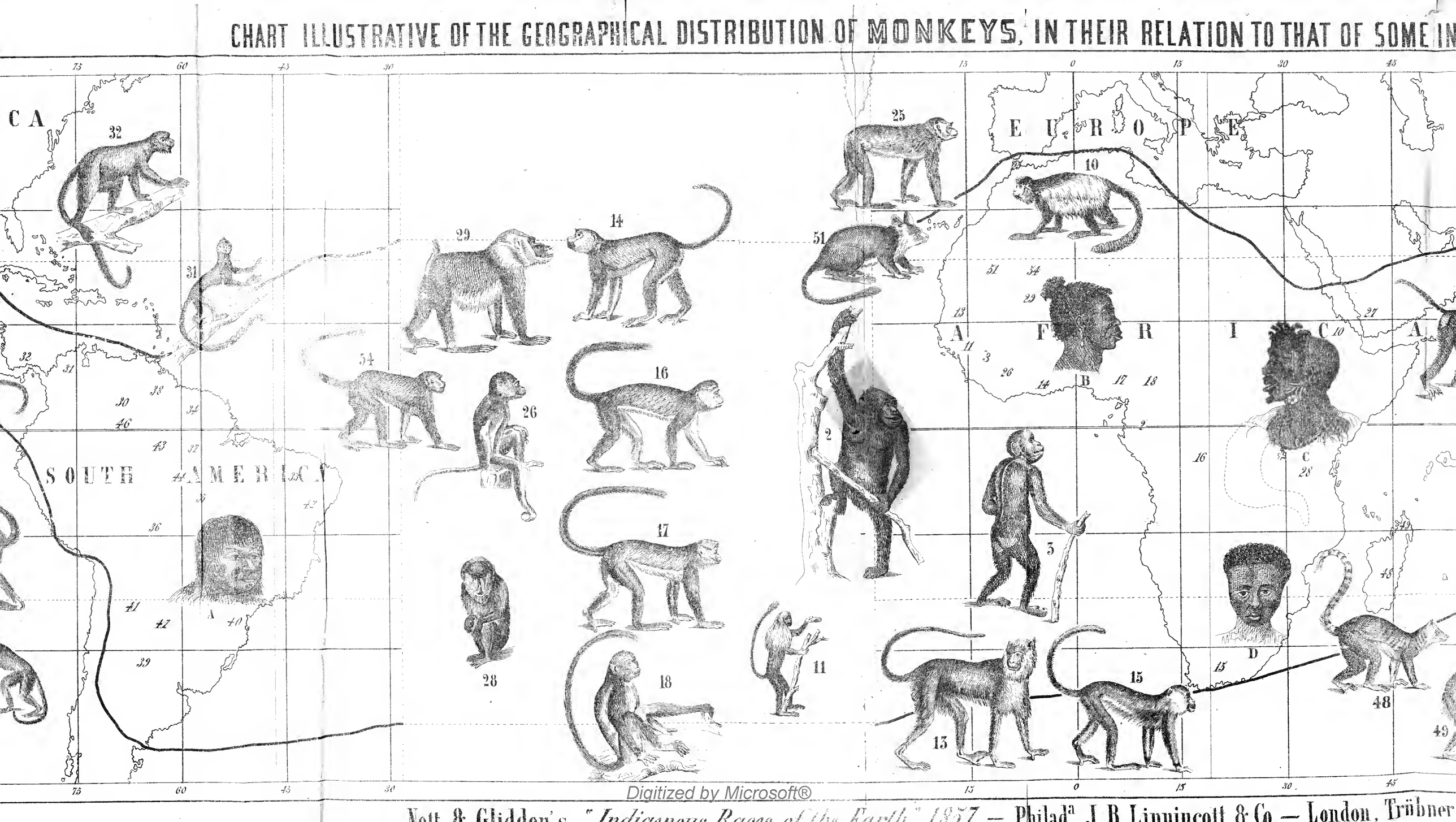
Nott & Gliddon's "Indigenous R

CHART ILLUSTRATIVE OF THE GEOGRAPHICAL DISTRIBUTION OF MONKEYS, IN THEIR RELATION TO THAT OF SOME IN



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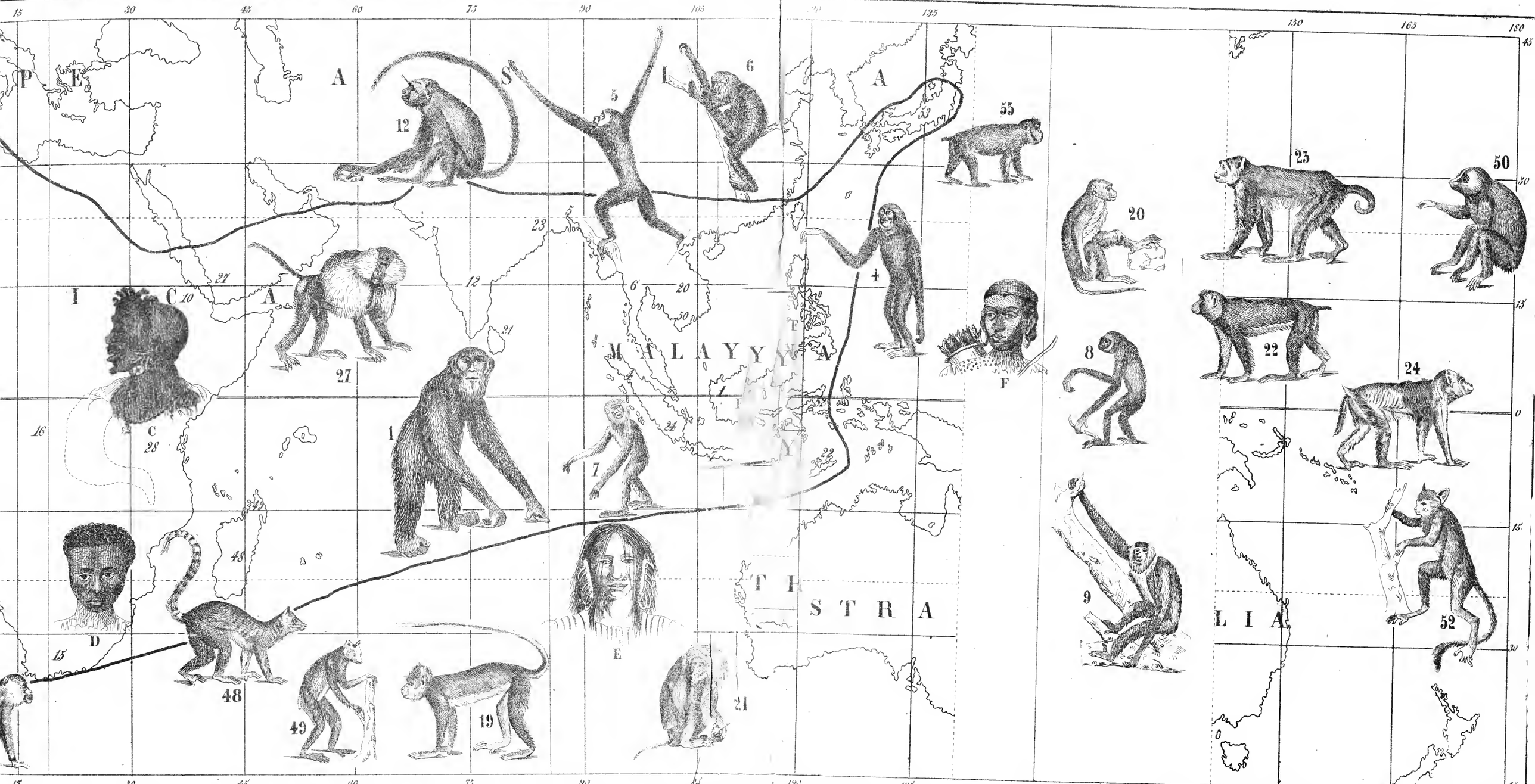
Nott & Gliddon's "*Indigenous Races of the Earth*," 1857. — Philad.ª J. B. Lippincott & Co. — London, Trübner

ELATION TO THAT OF SOME INFERIOR TYPES OF MEN.



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others of our plates, and a prospectus of this volume, I had the pleasure of enclosing to him.

On the 15th of the same month, during a brief interview in his library, Prof. Agassiz pointed out to me two errors in this chart, viz.: first (since corrected), that I had placed the habitat of the *chimpanzee* (No. 3) too far to the south in Africa; and second (which I have not altered), that, in America, the *black line of circumvallation* inclosing all the species "simiæ" is carried too much towards the north.

Notwithstanding the enormous pressure of his engagements,—increased as they are by the production of a work, as honorable to his science as unexampled in the annals of our common republic for the popular support it so deservedly receives—Prof. Agassiz was so complaisant as to say: "*If* I have time, I will send you a letter upon this subject." Well,—time or no time—that letter came, to the extreme gratification of Dr. Nott and myself; and the reader has already found it in our "Prefatory Remarks" (*supra*, pp. 13–15). Everything that follows hereinafter rests exclusively upon my individual responsibility.

DESCRIPTION OF MONKEY-CHART—NOTES AND REFERENCES.

The map itself has been drawn to the convenient scale of my friend Dr. Boudin's admirable *Carte physique et météorologique du Globe Terrestre.*[604] The black line, surrounding all those regions where monkeys are found, has been traced chiefly in accordance with the geographical distribution of Schmarda,[605]—compared with that of Berghaus,[606] of Keith Johnston,[607] of Petermann,[608] of Humboldt,[609] and of another *anonymous* geographer.[610]

Of the 54 figures of the monkeys themselves, 41 have been borrowed from the plate of J. Achille Compte;[611] and the remaining 13 copied, at our Academy of Natural Sciences of Philadelphia, by my wife,—to whom the tinted original given as pattern to the colorist is also due. The reference to each figure indicates the source whence such colors were derived. Independently of these works, and those cited previously (*supra*, Chap. V, pp. 459–65),

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[604] 3me *edition*, chez Andriveau-Goujon, Paris, 1855.

[605] *Übersichtskarte der geographischen Verbreitung der Thiere*, Wien, 8vo, 1853, vol. iii.

[606] *Physikalischer Atlas*, "Geographie der Thiere," Band II, Pl. 1; Text, pp. 137–8; Gotha, 1848.

[607] *Physical Atlas*, "Geographical division and distribution of the *Simiæ* and *Prosimiæ*;" and D 3, pp. 2–3, Edinburgh, fol., 1848.

[608] *Atlas of Physical Geography*, "Zoological map, Mammifers," Pl. 11, London, 4to, 1852.

[609] Bromme's "Atlas zu A. v. Humboldt's Kosmos,"—*Geographischen Verbreitung der vorzüglicheren Säugthiere auf der Erde*, Stuttgart, 1851, Pl. 32.

[610] *Zoological map showing the distribution of Animals over the World*, London, Reynolds, 1854.

[611] *Règne animal de M. le Baron Cuvier disposé en Tableaux méthodiques*, Paris, fol., 1832.

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D'ORBIGNY,[612] HUGHES,[613] and especially SCHINZ.[614] have been consulted. And here I may remark that, while all these invaluable books adorn the library of our Academy, I have gratefully enjoyed, in common with others, the benefit of Dr. Thos. B. Wilson's munificence towards this home of the Natural Sciences.

I proceed to catalogue the series exhibited on our "Monkey-chart;" after indicating to the reader that, as each figure is accompanied by its number, all that is necessary, in order to find its centre of creation in geographical distribution, is to look at the corresponding number on the map itself.

SIMIÆ ORBIS ANTIQUI, CATARRHINÆ.

No. 1. — Troglodytes Gorilla.
[ROUSSEAU ET DEVÉRIA, *Photographie Zoologique*, Paris, Mus. d'Hist. Nat., 1854, Pl. XIII — "individu adulte envoyé du Gabon par M. le Dr. Franquet, 1852:"—colored by directions in GERVAIS, I, p. 28.]

2. — Troglodytes niger.
[LESSON, *Illustrations de Zoologie*, Pl. 32.]

3. — Simia Satyrus.
[CHENU, Pl. 4, "pose naturelle:" colored by WAGNER, Pl. I.]

4. — Hylobates syndactylus,
[F. CUVIER, *Mammifères*, Pl. III.]

5. — Hylobates albimanus.
[AUDEBERT, *Singes*, I, Pl. 2.]

6. — Hylobates Hoolock.
[CHENU, Fig. 52, pp. 63–4: — JARDINE, *Nat. Lib.* Pl. 3.]

7. — Hylobates Leuciscus.
[SCHREBER, *Säugthiere*, Tab. III, B.]

8. — Hylobates funereus.
[WAGNER, p. 18: — *Archiv. du Mus.*, V, p. 532, Tab. 26.]

9. — Hylobates agilis.
[GERVAIS, p. 54: — JARDINE, pp. 109–14, Pl. 5.]

10. — Colobus Guereza.
[RÜPPEL, *Werbithiere*, II, Tab. 1.]

11. — Colobus polycomos.
[SCHREBER, X, D.]

12. — Semnopithecus Entellus.
[AUDEBERT, *Singes*, Pl. IV.]

No. 13. — Cercopithecus ruber.
[SCHREBER, XVI, B.]

14. — Cercopithecus Faunus.
[SCHREBER, XII.]

15. — Cercopithecus pygerythrus.
[CUVIER, *Mammifères*, "Vervet."]

16. — Cercopithecus Mona.
[AUDEBEAT, IV, 2, fig. 7.]

17. — Cercopithecus cephus.
[AUDEBERT, IV, 2, fig. 12.]

18. — Cercopithecus nictitans.
[AUDEBERT, IV, 1, fig. 2.]

19. — Semnopithecus comatus.
[SCHREBER, XXIV, A.]

20. — Macacus aureus.
[*Zoologie de la* "Bonite," Pl. 2.]

21. — Macacus silenus.
[AUDEBERT, II, I, fig. 3.]

22. — Macacus nemestrinus.
[F. CUVIER, *Mam.*, XIII.]

23. — Macacus Rhesus.
[AUDEBERT, II, 1, fig. 1.]

24. — Macacus Maimon.
[F. CUVIER, *Mam.*]

25. — Macacus scandatus.
[AUDEBERT, I, 3, fig. 1.]

26. — Cynocephalus sphinx.
[SCHREBER, VI, or XIII, B.]

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[612] *Dictionnaire universelle d'Histoire Naturelle*, Paris, 1847, "Quadrimanes," X, pp.668–70.
[613] *Storia Naturale delle Scimie e dei Maki disposta con ordine*, Milano, fol., 1822.
[614] *Systematischen Verzeichniz*, &c., *sive Synopsis Mammalium*, Solothurn, 8vo, 1844, vol i. *passim*.

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No. 27. — Cynocephalus Hamadryas.
[SCHREBER, X:—GERVAIS, V:—CHENU, fig. 143: —FISCHER, pp. 35-6:—WAGNER, p. 62:—DE BLAINVILLE, *Ostéographie*, p. 23.]

No. 28. — Cynocephalus Mormon.
[JARDINE, Pl. 17.]

29. — Cynocephalus leucophæus.
[CUVIER, *Ann. du Mus.*, IX, Tab. 37.]

SIMIÆ ORBIS NOVÆ, PLATYRHINÆ.

No. 30. — Mycetes ursinus.
[AUDEBERT, V, 1, fig. 1.]

31. — Cebus robustus.
[SPIX and MARTINS, Pl. "Thierformen des Tropischen America," fig. 12:—JARDINE, Pl. 21.]

32. — Mycetus barbatus.
[SPIX, *ibid.*, 17:—WAGNER, Supplement, I, XXV, D.]

33. — Ateles arachnoides.
[GEOFF., *Ann. du Mus.*, XIII, Pl. 9.]

34. — Ateles Belzebuth.
[SCHREBER, XXVI, B.]

35. — Ateles Paniscus.
[JARDINE, Pl. XX.]

36. — Cebus Azara.
[AUDEBERT, V, 2, fig. 1.]

37. — Chrysothrix sciureus.
[D'ORBIGNY, *Voy., Mammif.*, Pl. 4.]

38. — Pithecia rufiventer.
[AUDEBERT, VI, 1, fig. 1.]

39. — Pithecia melanocephala.
[SPIX, *Sim.*, Pl. VIII:—GEOFF., *Ann.*, XIX, p. 117.]

40. — Callithrix personatus.
[SCHREBER, XXX a.]

41. — Nyctipithecus trivirgatus.
[JARDINE, Pl. XXIV.]

42. — Hapale Jacchus.
[AUDEBERT, VI, 2, fig. 4.]

43. — Hapale penicillata.
[WAGNER, Suppl., XXXIII a.]

44. — Callithrix lugens.
[JARDINE, XXIII.]

45. — Hapale Œdipus.
[AUDEBERT, VI, 2, fig. 1.]

46. — Chrysothrix nigrivittata.
[WAGNER, XI.]

47. — Hapale rosalia.
[JARDINE, XXVIII.]

48. — Lemur catta.
[AUDEBERT, Maki, fig. 4.]

49. — Lichanotus Indri.
[AUDEBERT, Indri, fig. 1.]

50. — Stenops tardigradus.
[AUDEBERT, Loris, fig. 1.]

51. — Galago senegalensis.
[SCHREBER, XXXVIII, B.]

52. — Tarsius spectrum.
[AUDEBERT, fig. 1.]

53. — Inuus speciosus.
[WAGNER, Pl. V.]

54. — Cercocebus sabæus.
[JARDINE, Pl. XIII.]

But, that the above 54 specimens comprehend but a very small portion of the varied "species" of Monkeys already known, is made evident through the following table from WAGNER:— [615]

[615] *Die Säugthiere in Abbildungen nach der Natur mit Beschreibungen von Dr. Johann Christian D. von Schreber*, Leipzig, 4to, 1853, p. 3.

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Genera.	MONKEYS. Name of Order.	Number of the kinds. Known in 1840.	Classified in 1852.	Classified since 1840.
1	Simia	2	3	1
2	Hylobates	7	8	2
3	Semnopithecus	14	25	8
4	Colobus	7	5	
5	Cercopithecus	16	32	11
6	Inuus	11	10	2
7	Cynocephalus	7	10	1
8	Mycetes	2	7	1
9	Lagothrix	2	2	
10	Ateles	8	9	1
11	Cebus	2	10	3
12	Pithecia	6	7	2
13	Nyctipithecus	1	3	1
14	Callithrix	6	11	2
15	Chrysothrix	1	3	1
16	Hapale	15	26	7
17	Lichanotus	1	1	
18	Habrocebus	2	2	
19	Lemur	8	14	4
20	Galeocebus		1	1
21	Chirogalens	1	5	3
22	Stenops	2	3	
23	Microcebus	1	2	1
24	Perodicticus	1	1	
25	Otolicnus	4	6	1
26	Tarsius	1	1	
	Sum.	128	210	53

Hence, then, including additions since 1852, we possess already more than 216 distinct animals of the monkey-tribe. These are thus classified,—after a lament regarding the difficulties of *systems* —by GERVAIS:—[616]

"This first tribe of the Mammifers will be partitioned, as follows, into five secondary groups:—

1st.—The ANTHROPOMORPHS (*Anthropomorpha*), comprising the genera TROGLODYTE, GORILLA, ORANG, and GIBBON.

2d.—The SEMNOPITHECI (*Semnopithecians*), divide themselves into NASIC, SEMNOPITHECI properly so called, PRESBYTE, and COLOBUS.

3d.—The GUÉNONS (*Cercopithecians*), or the genera MIOPITHECUS, and CERCOPITHECUS.

4th.—The MACACS (*Macacians*), who partition themselves into MAGOT, MANGABEY, MAIMON, and MACAC.

5th.—CYNOCEPHALI (*Cynocephalians*), or the CYNOPITHECI, MANDRILLS, PAPIONS, and THEROPITHECI.

Of these five groups, the third alone is exclusively African: the four others, on the contrary, have each particular genera in America and India."

The reader's eye, following the black line of circumvallation on our "Chart," will perceive that, except at Gibraltar (whither De Blainville[617] considers the *magot* to be an importation), there are no

[616] *Trois Règnes de la Nature, Mammifères*, 1re partie, Paris, 4to., 1854, p. 12.

[617] *Ostéographie*, p. 21. But see GERVAIS, pp. 95–9.

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monkeys in Agassiz's European realm,—none in the Polynesian, nor any in the Australian. In the American, the Professor told me that no *simiæ* are to be found northward of the Isthmus of Tehuantepec. Prof. Spencer F. Baird, however, obligingly pointed out to me two passages which seem to leave the exact degree of latitude an open question.[618]

But the strangest puzzle of all is, how to explain the sharp line of demarcation beheld between island and island, in the *Malayan* realm; which a great naturalist has forcibly embodied in the following language:—[619]

"The [East-Indian] Archipelago forms, as it were, a world apart, as much by its geographical position, as by its relation to ethnography and natural history. Situate betwixt the Indian continent and Australia, the natural productions of this maritime world resemble, for the greater part, those of the limitrophic lands; and it is there only where the transition pronounces itself the most distinctly, where one observes a small number of peculiar beings. This line of transition is marked by the islands of Celebes, Flores, Timor, and Boeroe. It finds itself, consequently, between the 135th and 145th of east longitude of the meridian of Ferro. At the Moluccas, all nature already wears an Australasiatic (*Papou*) character; because, beyond some chiroptera which stretch as far as New Guinea, and the genus of hogs, all the mammifera originating in that country belong to the order of the marsupials [every other animal having been *imported*]. * * * * In general, the botanical and zoological character of Australia commences at Celebes and at Timor; so that these two islands may be considered as the limits of two Faunas altogether distinct. * * * * The Indian Archipelago divides itself, therefore, in the direction of west to east, as concerns geography and natural history, into two parts of unequal extension. The occidental part, which is the largest, contains the islands of Borneo, Sumbawa, Java, Sumatra, and the peninsula of Malacca; whereas the oriental portion contains but the islands of an inferior order,—those of Celebes, Flores, Timor, Gilolo, and, to take the widest range, perhaps even to Mindanao."

MÜLLER then goes on to explain how those larger portions that are nearest to the Hindostanic continent resemble, in their *Faunæ*, the southern parts of India,—just as Maury (*supra*, Chapter I.) has shown it to be the case with mankind. He counts about 175 mammifers throughout the entire archipelago, Malacca and New Guinea inclusive; of which scarcely thirty belong exclusively to the eastern side, where, chiroptera inclusive, there are but fifty species in all.

In this singular arrangement of nature within so small an area, and amid islands so very proximate, the *Orangs*, the *Gibbons*, indeed all true *Simiæ*, appertain solely to the western side; and are totally

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618 "The Monkeys which enter into the southern provinces of Mexico belong to the genera *mycetes* and *hapale*" (RICHARDSON, "Report on N. Amer. Zool."—*Brit. Assoc. adv. Science*, V. 1837, p. 138): and "apes in the southern provinces of Mexico" (WAGNER, *Bayerischen Akadémie*, München, 1846, p. 51.)

619 SALOMON MÜLLER, "Cosmographie, Zoologie comparée,"—*Siebold's Moniteur des Indes-Orientales et Occidentales*, Batavia, 4to., 1846–7, pp. 129–36. M. Müller, as member of the Commission of Physical Researches, spent in the Indian Archipelago "onze années des plus belles de ma vie."

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absent in the eastern: Celebes and Timor being the most easterly isles producing monkeys, and these only *Macacos* and *Cynocephali*. Hence, the anthropoid apes, highest of the series, are met with only where Telingan, Malay, and Negrillo races dwell: neither those, nor even the lower monkey-forms, being encountered amid the homes of Papouas, Harfoorians,—far less of Australians. Now, what is essentially noteworthy, if depressions of temperature may explain why the natural limit of the monkey-range does not extend itself outside of our black line of circumvallation elsewhere, such explanation has no force here. Its cause is inherent in some other law of nature.

HUMAN HEADS IN MONKEY CHART.

(Figs. A, B, C, D, E, F.)

Having sketched, in the preceding pages, the relative positions of 54 "species" of the *simiadæ*, out of some 216 known, amid the zone appointed for them by Nature; I pass onward in the endeavor to indicate to the reader, through *six human heads*, the sort of types co-resident with monkeys within the same geographical area. These six heads, however, can merely serve as mnemonics; because, had space permitted, and did we possess the portraits of numberless races with which wo are acquainted solely through descriptions, it would not have been a difficult matter to draw, on the same spot occupied by each quadrumane, a himane illustrative of singular correspondences; and then the eye could have perceived that the colorations of the human skin, within this self-same zone, are almost as varied, and as diverse from each other, as the forms and colors of the monkey tribes are now therein seen to be different. This experiment may, in the future, be tried by others. In the meanwhile, the letters placed beneath serve to indicate the habitat of each of these six individuals, whose likenesses are very roughly traced.

REFERENCES AND EXPLANATIONS.

A. — AMERICAN. "*Purú-Purú*" *nation.*

[Spix and Martius, *Reise in Brazilien*: — colored by De Castelnau, *Amérique du Sud*, "Pl. XIX. *Chiotay*, fameux chef de Cherentes qui a long temps désolé la province de Goyaz. * * * Il était anthropophage."]

To convince oneself of the untold varieties of these South American races,— see De Castelnau (*passim*); Augt. St. Hilaire (*Rio de Janeiro*, I, pp. 424–7; II, pp. 49–57, 137–231); D'Orbigny (*Voy.*, Atlas); Debret (*Voy. Pittor. au Brésil*, fol., Paris, 1834, II, and plates);—especially Rugendas (*Voy. Pittor. au Brésil*, transl. Golberry, Paris, fol., 1833, II, "portraits et costumes," pp. 2–34); and Darwin, Wilson, and Fitzroy (*Surveying Voyages* of H. M. S. "Adventure" and "Beagle" — London, 8vo, 1829 — II, pp. 129–82; appendix, pp. 135–49; III, pp. 519–33).

B. — WEST AFRICAN. "*Nègre de la côte d'Or*" — *in Brazil.*

[Choris, *op. cit.*, liv. 7me, Pl. VI: — colored by descriptions in Rugendas.]

See Chapter V, *supra*, pp. 545–6.

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C. — EAST AFRICAN. "*Mozambique*" *negro, in Brazil.*

[DEBRET, *op. cit.*, II, Pl. 37 — "différentes nations nègres," fig. 8: — colored from his descriptions (pp. 114–15); as compared with some of DE FROBERVILLE'S casts, and with CHORIS'S accounts, liv 1re, pl. III, &c.]

SALT (*Voyage to Abyssinia*, London, 4to, 1814, pp. 33–41) spoke about the *Monjou* negroes on that coast as "of the ugliest description, having high cheek-bones, thick lips, small knots of woolly hair like peppercorns on their heads, and skins of a deep, shining black:" and again, that the *Makooa*, *Makooana*, who are negroes, and not Kaffrs (an Arabic term, only meaning "infidel"), whilst possessing excessive deformity, and ferocity of visage and characters, did not possess any name for "God" except *wherimb*, meaning the "sky," — any more than did the *Monjous* themselves, among whom "molungo" signified both GOD and *sky*. Compare *Types of Mankind*, pp. 609–10.

D. — SOUTH AFRICAN. "*Hottentot Venus.*"

[From a photograph by M. Roussean—*Galerie Anthropologique*, Paris—of her colored full-size cast in that Museum.]

Compare her portraits in CUVIER'S fol. *Mammifères;* and my remarks, *supra*, pp. 628–9.

E. — MALAYAN. "*Serebis Dyak.*"

[MARRYATT, *Borneo and the Indian Archipelago*, London 8vo, 1848, Pl. 79:—tinted "copper-colored," *op. cit.*, pp. 5, 78.]

My brother William, long stationed at Saràwak (*supra*, p. 635), tells me that it is an excellent sample.

F. — "BISAYA *sauvage, ou des montagnes.*"

[MALLAT, *Philippines*, Atlas.[620]]

Compare the observations of CHAMISSO (in VON KOTZEBUE'S *Voy.* "Rurick," II, pp. 351–98); and of LESSON and GARNOT (in DUPERREY, *Voy.* "Coquille," Paris, 8vo., 1826; "Zoologie," I, pp. 8–106).

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[620] The *homines caudati* have been already treated upon (*supra*, Chap. V, pp. 458–9 notes 183–4). MALLAT (*Les Philippines*, p. 129) neither believes in them, nor in the reported unions between human and anthropoid genera; on which BLUMENBACH (*De Generis Humoni varietate*, p. 16) indignantly wrote "Hybrida humana negantur," while VIREY (*Hist. Noturelle du Genre Humain*, 1824, III, p. 491, &c. &c.) denies that such experiment has been fairly tried.

Had not an account of the "Orang-*Kubu*," and of the "Orang-*Gugur*," been read before the American Geographical and Statistical Society of New York, and received the Society's "imprimatur" in pamphlet form (*Report* "on the East Indian Archipelago; and a description of the Wild Races of men," New York, 1854), I should have as little dared to refer to Capt. Walter M. Gibson's most enchanting adventures (*The Prison of Welteverden; and a glance at the East Indian Archipelago*, New York, 1855, pp. 120–3, 180–2), as to have cited, on African questions, my friend Mr. Brantz Mayer's entertaining "CAPTAIN CANOT." As it is, the responsibility of publication, in the former case, reposes entirely upon *la critique* of the honorable historians, divines, lawyers, doctors, and merchant-princes, who in council assembled to hear the Captain's eloquent address, on the 24th March, 1855, at the New York University. As I receive it, so I pass it on: with the mere remark that, the authentic descriptions science possesses of real men — the *Orang-benua*, to wit — in Malayana, have, quite sufficiently for my anthropoid analogies, brought down humanity, in that Archipelago, to a grade not many removes from the rubescent *Orang-utans;* so that, should Mr. P. T. Barnum ever be so lucky as to import for his Museum a live specimen of the genus "Orang" (Malayicè *man*), like that one figured by Capt. Gibson in wood-cut on page 180, I shall thankfully accept,—just as I should be equally glad to see one of M. d'ABBADIE'S "Dokkos" (PRICHARD, *Nat. Hist.*, p. 306) — such a wonderful "confirmation" (not to mention also sundry dwarf "Aztec children") *par dessus le marché.*

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FINAL OBSERVATIONS.

Thus, I think, we have ascertained that, in Continental Asia, Africa and America, — leaving aside Madagascar — no less than amidst the thousand islands of the Indian Archipelago, there are scattered immense numbers, and many varieties, of Monkeys; that, in some places, different "species" occupy contiguous habitats, whilst their specific analogues are only met with at very remote distances; that, no two tracts of mountain or valley, hardly two islands, possess the same "species" of Monkey; in short, no spot within the Tropical zones, however circumscribed in area, which does not, if it has any at all, possess its own *simia* or *simiæ;* and, finally, that such "species" is rarely to be found anywhere else. This (if recollection serves) is the substance of what I learned from Prof. Agassiz's memorable 6th lecture, delivered at Mobile.

Now, does any naturalist claim that each "species" of monkey was not *created* within the particular province, zone, focus, or centre, where we find it? Will any naturalist hazard a denial that such monkeys were therein created, not in single pair, but in "nations"?

On ascending to Man, viewed as the "sole representative of his order," after taking the preceding survey of his more or less anthropomorphous precursors, — whether in relative palæontological epochas, or in respective station at a given link of the spiral chain of beings — is it, I would inquire, by accident that the highest approximations to the human form dwell closely along the Equinoxial line, almost in antipodean juxtaposition,—viz., the red orang-utans, with black and brown gibbons, in Malayana, and the black gorillas and chimpanzees in Africa?

And, is it again through accident, I ask, that the converse of this proposition is true, viz: that the lowest forms of mankind in Africa as well as the lowest forms of mankind in Malayana, vegetate this day, precisely where the highest, most anthropoid, types of monkey "species" respectively reside?

Others may believe in "accident." I do not,—where nature manifests to my reason such harmonies in the action of Creative Power.

Still, notwithstanding my own belief in a CREATOR, there are such things — things which the brothers Humboldt suspected and rejected — as "*myths, fiction,* and *pretended tradition.*" All animals, Man inclusive, are said to have spread themselves over this planet's superficies, during the last (2348–1857) 4205 years, dating from the

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period when Noah's Ark grounded upon Mount Ararat, in Armenia, whose geographical position and altitude are well known.[621]

By way of archæological experiment, under the generally accepted hypothesis that the parents of all these *simiæ* descended, peripatetically along that mountain, and genealogically from that "single pair," what *species* of monkey now extant is the one which is most likely to satisfy the conditions required?

Premising that such an unique couple[622] must have travelled down that mountain with amazing celerity,[623] in order to attain warmer latitudes, and in quest of food and a home,—it is only the *Cynocephalus Hamadryas*[624] that fulfils every necessary requirement. His present habitat—Arabia, and perhaps Persia—is the nearest in geographical approximation to Mount Ararat; and we know that he lived thereabouts, near Mesopotamia, as far back as B. C. 885; because his effigy is sculptured on the Obelisk of Nimrood,[625] assigned by Rawlinson to that date, under the reign of JEHU.[626] I propose, therefore, that a male and female "pair" of the "species" *Cynocephalus Hamadryas* [No. 27] be henceforward recognized as the anthropoid analogues of "Noah, Shem, Ham and Japheth;" and that it must be from these two individuals that, owing to transplantation, together with the combined action of aliment and climate, the 54 monkeys represented on our chart have originated. It is, notwithstanding, sufficiently strange, that, under such circumstances, this "primordial organic type" of monkey should have so highly improved in Guinea and in Malayana as to become *Gorillas* and *Chimpanzees, Orangs* and *Gibbons;* whereas, on the contrary, the descendants of "Adam and Eve" have, in the same localities, actually deteriorated into the most degraded and abject forms of humanity.

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[621] See above, Chapter V, pp. 572–3.

[622] The KOPHÌM, apes [*supra*, V, note 341], are not mentioned in Hebrew writings until the recent manipulation of *Kings* and *Chronicles* by the Esdraic school. Being always "unclean" to the Israelites and Mussulmans, however dear to the Brahmans, monkeys must have been taken into the Ark "two and two" (*Genesis*, VII, 9); and not "by sevens" (ibid., verse 2).

[623] They are celebrated for their agility, and are the only "species" trained in the Levant for gymnastic and dancing exhibitions.

[624] *Supra sub voce:*—AINSWORTH (*Researches in Assyria, Babylonia and Chaldæa*, London, 8vo, 1838, p. 37) observes, "The monkey, whose country begins about 38° N. lat., is unknown in Assyria and Babylonia; but it is not certain if it is not an extinct animal, for an able Hebrew scholar has stated to me, that the doleful creatures which are prophetically announced as tenanting fallen Babylon, ought to be read as monkeys or baboons."

[625] LAYARD'S folio *Monuments*, 1849; and his *Nineveh and its Remains*, 1848; contain accurate copies of this monument. For the archæology of various monkeys, see DE BLAINVILLE (*Ostéographie*, pp. 28–49), and GERVAIS (*op. cit.*, pp. 107–8).

[626] *Types of Mankind*, pp. 701–2

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In bidding farewell to the reader, I would invite his attention to one more singularity, and to one now established fact, suggested by inspection of this Monkey-chart, viz :—

1. That, within the black circumvallating line which surrounds the zone occupied by the *simiæ*, no "civilization"—except possibly in Central America and Peru—has ever been spontaneously developed since historical times.

Europe, since the ages of fossil remains (*supra*, Chapter V, pp. 523–4), has not contained any monkeys, save a few apes imported from the African side to skip about Gibraltar rock. The line runs south of Carthage, Cyrene, Egypt-proper, Palestine, Mesopotamia, Ariana, and China. We know that Hindostanic "civilization" was due exclusively to immigrant *Aryas;* and that of Malayana, primarily to the migratory sequences of the latter, and secondarily to the Muslim *Arabs.*

2. That the most superior types of Monkeys are found to be indigenous exactly where we encounter races of some of the most inferior types of Men.

G. R. G.

PHILADELPHIA, *February*, 1857.

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[627] N. B. — Those gentlemen whose names are marked with an asterisk (*) have materially furthered the scientific interests of this work.

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